



ANNUAL REPORT

SoonerCare Health Management Program Evaluation

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PHPG



READER NOTE

The Pacific Health Policy Group (PHPG), in collaboration with APS Healthcare, is conducting the independent evaluation of the SoonerCare Health Management Program. PHPG wishes to acknowledge the cooperation of the Oklahoma Health Care Authority and Telligen in providing the information necessary for the evaluation.

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EXECUTIVE SUMMARY

Introduction

Chronic diseases are among the most costly of all health problems. Treatment of chronic disease accounts for more than 75 percent of total U.S. health care spending. Providing care to individuals with chronic diseases, many of whom meet the federal disability standard, has placed a significant burden on state Medicaid budgets.

Under the Oklahoma Medicaid Reform Act of 2006 (HB2842), the Legislature directed the Oklahoma Health Care Authority (OHCA) to develop and implement a management program for chronic diseases, including, but not limited to, asthma, chronic obstructive pulmonary disease (COPD), congestive heart failure, diabetes and renal disease. The SoonerCare Health Management Program (HMP) would address the health needs of chronically ill SoonerCare members while reducing unnecessary medical expenditures at a time of significant fiscal constraints.

The OHCA contracted with a vendor through a competitive bid process, to implement and operate the SoonerCare HMP. Telligen¹ was selected to administer the SoonerCare HMP in accordance with the OHCA's specifications. Telligen is a national quality improvement and medical management firm specializing in care, quality and information management services. Telligen staff members provide nurse care management to SoonerCare HMP participants and practice facilitation to OHCA-designated primary care providers.

Medical Artificial Intelligence (MEDai), was already serving as a subcontractor to Hewlett Packard (HP), the OHCA's Medicaid fiscal agent. The HMP capitalized on this existing relationship by utilizing MEDai to assist in identifying candidates for enrollment in the SoonerCare HMP based on historical and predicted service utilization.

Prior to the program's implementation, the OHCA committed to measuring its effectiveness and making adjustments, as appropriate, to enhance its efficacy. The OHCA contracted with the Pacific Health Policy Group (PHPG) and its partner, APS Healthcare, to assess the program and its performance against stated objectives.

PHPG and APS Healthcare are conducting a multi-year evaluation of the SoonerCare HMP's impact on beneficiaries, providers and the health care system as a whole with respect to:

1. Utilization of preventive and chronic care management services and adherence to national, evidence-based disease management practice guidelines;

¹ Prior to August 2011, Telligen was known as the Iowa Foundation for Medical Care.

2. Level of care management and coordination between providers, care managers, the member and others involved in the member's care;
3. Increased member self-management of chronic conditions;
4. Member satisfaction and perceived quality of life;
5. Provider participation rates and satisfaction; and
6. Avoidance of unnecessary service utilization (e.g., inpatient days and emergency department visits) and associated expenditures.

Evaluation Scope and Methodology

The fourth Annual Evaluation report addresses the performance of the SoonerCare HMP in State Fiscal Year 2012 (July 2011 – June 2012). The report examines the SoonerCare HMP across a series of measures tied to the broad evaluation criteria presented above.

The measures fall into four categories:

- *Structure Measures* that evaluate whether the SoonerCare HMP vendor (Telligen) is meeting contractual requirements with respect to key program staff
- *Process Measures* that evaluate whether the SoonerCare HMP vendor is meeting contractual requirements with respect to member engagement, assessment and care management contacts, and provider practice facilitation, education and incentive payments
- *Performance Measures* that evaluate the program's impact on quality of care for members falling into one or more selected chronic disease groups, as determined through clinical reviews of administrative claims data and medical records
- *Outcome Measures* that evaluate the program's ultimate impact with respect to reducing unnecessary service utilization and expenditures and achieving high levels of member and provider participation and satisfaction

PHPG and APS Healthcare collected data for the evaluation through a variety of methods. These included an onsite audit of Telligen, analysis of paid claims data and surveys/focus groups/interviews of nurse care management and practice facilitation participants. The evaluation separately examined the two major components of the SoonerCare HMP, nurse care management and practice facilitation. Evaluation findings are presented beginning on the following page.

Nurse Care Management Evaluation

Overview

The SoonerCare HMP targets members with chronic conditions who have been identified as being at high risk for both adverse outcomes and increased health care expenditures, and whose future costs could potentially be reduced, or “impacted” through care management. The high risk population contains a disproportionate number of persons with co-morbidities, including combinations of such diseases as congestive heart failure, chronic obstructive pulmonary disease (COPD), coronary artery disease, diabetes and hypertension.

The OHCA uses MEDai predictive modeling software to identify SoonerCare members with chronic conditions who would be eligible for the SoonerCare HMP. Once identified, the OHCA stratifies these members into tiers based on forecasted risk and service expenditures. Members predicted to be at highest risk for adverse outcomes and increased service expenditures are placed into Tier 1. Members predicted to be at high risk for adverse outcomes and next highest service expenditures are placed into Tier 2.

Nurse care managers conduct an assessment and develop a plan-of-care for their assigned members. The assessment and care planning process is face-to-face for Tier 1 participants and telephonic for Tier 2.

Nurse care managers use assessment results to develop individualized care plans that establish goals and objectives to address the participant’s current health needs. The care plan seeks to help participants better manage their health, understand the appropriate use of health care resources and identify changes in their health.

Nurse care managers attempt to provide at least monthly face-to-face visits to Tier 1 participants while Tier 2 participants receive telephonic services from registered nurses and licensed practical nurses. Tier 2 nurse care managers are centrally located at the SoonerCare HMP Call Center, which is in West Des Moines, Iowa.

In June 2012, the program included 888 Tier 1 and 3,242 Tier 2 participants. Full enrollment is defined as 1,000 for Tier 1 and 4,000 for Tier 2. Enrollment was below capacity as the result of a concerted effort by the OHCA and Telligen earlier in the year to graduate participants who had achieved their self-management goals.

The nurse care managed population is significantly older than the general SoonerCare population and includes persons with a wide variety of chronic and acute medical conditions, such as diabetes, heart disease and neoplasms (cancer). The population also includes a significant number of persons with co-morbidities, including physical and behavioral health co-

morbidities. In fact, psychosis has been the most common diagnosis for Tier 1 participants, and second most common for Tier 2, since the beginning of the program².

Evaluation Findings

The nurse care management evaluation included five components:

- Audit of Telligen operations;
- Participant self-management and satisfaction survey and focus groups;
- Quality of care evaluation;
- Utilization and expenditure trend analysis; and
- Cost effectiveness analysis.

PHPG conducted an onsite audit of Telligen at the firm's Oklahoma City offices in November 2012. The audit was conducted to verify Telligen's compliance with contractual standards during SFY 2012. The standards examined included: care manager staffing; timely completion of assessments and care plans; monthly participant contact attempts; quarterly PCP contacts; behavioral health referral follow-up; and the graduation process.

Telligen was found to be in full compliance with assessment and care planning standards. The successful contact rate declined slightly from previous years but was largely in compliance with contract standards. A number of other relatively minor deviations from contract standards were identified, but none was observed to be having a negative impact on the quality of care management. The deviations are discussed in detail in chapter two of the report.

Participant Self-Management and Satisfaction Survey and Focus Groups

PHPG is required to assess the efficacy of the program in part through surveys and focus groups of program participants. The satisfaction survey component of the evaluation assesses the SoonerCare Health Management Program's impact on quality of life and development of chronic disease self-management skills.

The SoonerCare HMP is viewed very favorably by both Tier 1 and Tier 2 participants. Most survey respondents are in regular contact with their nurse care manager and report receiving a range of services intended to improve their health and self-management skills.

Ninety percent of survey participants report being "very satisfied" with their nurse care manager and nearly as many with the program as a whole. Program graduates also remain enthusiastic about their experience; 88 percent are very satisfied and 100 percent are very or somewhat satisfied.

² "Most common diagnosis" is defined as the diagnosis code that appears most frequently in a beneficiary's claims history, based on a count of individual claims. PHPG calculated the three most common diagnoses for each beneficiary.

The program's perceived impact on participant health remains somewhat ambiguous. Only about 27 percent of survey respondents reported an improvement in their health, but nearly all that did see an improvement attribute it to the program's services.

Focus group findings were consistent with survey results. Focus group participants were particularly appreciative of the work performed by their nurse care managers:

"We talk about goals and what are your health care goals for the month, and last month we talked about this, this and this, and how are you doing on those. It's accountability that I don't have any place in my life that pushes me..."

"Mine sends me charts. I have to take my blood pressure and write down my pulse every morning, which is easy to get away from...We go over it very quickly. You know it's easy to go over a 30-day chart and see if my blood pressure spiked at all. I'm grateful that something's working. It's so nice not to worry..."

Quality of Care Evaluation

The SoonerCare HMP is not a traditional disease management program. Participants do not qualify solely by having a particular chronic illness. However, the program does target members with chronic diseases, including asthma, COPD, congestive heart failure, coronary artery disease, diabetes and hypertension. Participants also must be at risk of incurring significant medical costs based on their past utilization and overall health status.

To measure the program's impact on quality of care, APS evaluated the preventive and diagnostic services provided to SoonerCare HMP participants in each of the above diagnostic categories. APS also evaluated preventive services, in terms of influenza vaccinations, and the population's MEDai "risk" and "gap" scores prior to and after engagement.

APS examined 24 measures using administrative (paid claims) data. APS determined the total number of participants with a primary diagnosis in each measurement category, the number meeting the clinical standard and the resultant "percent compliant". APS also calculated the SFY 2012 compliance rates for a "comparison group" consisting of SoonerCare members found eligible for, but not enrolled in the SoonerCare HMP.

As in SFY 2010 and SFY 2011, findings from the analysis were promising. The participant compliance rate exceeded the comparison group rate on 14 of the 21 diagnosis-specific measures (nearly 67 percent). The difference was statistically significant for nine of the 14, suggesting that the program is continuing to have a positive effect on quality of care. The most impressive results, relative to the comparison group, were observed for participants with congestive heart failure, coronary artery disease and hypertension.

The participant compliance rate also improved on 12 of the 21 diagnosis-specific measures (57 percent) when compared to SFY 2011. The most impressive results, relative to SFY 2011, were

observed for participants with chronic obstructive pulmonary disease, congestive heart failure, coronary artery disease and hypertension. The program also appears to be having a positive impact on participant acuity and care gap scores.

The compliance rate for the influenza vaccine rose nearly five percentage points from SFY 2011, but remained low at just under 21 percent. Many SoonerCare HMP participants fall into high risk groups (e.g., persons with compromised immune systems) and continued efforts should be made to educate both providers and participants about the importance of the vaccine.

Utilization and Expenditure Analysis

Nurse care management, if effective, should have an observable impact on participant service utilization and expenditures. Improvement in the quality of care should yield better outcomes in the form of lower hospitalization rates and acute care costs.

PHPG analyzed rates of hospitalization and emergency department visits for both tier groups for the first 12 months after engagement, as compared to MEDai forecasts. Total service expenditures also were analyzed for a 36 month period after engagement, as compared to MEDai and PHPG forecasts³. The analysis was performed for individual diagnostic categories (e.g., persons with asthma), as well as for total unduplicated participants within each tier group.

Tier 1 participants (across all diagnostic categories) were forecasted to spend an average of 11 days in the hospital in the 12 months after engagement; the actual rate was approximately four days. Tier 2 participants were forecasted to spend an average of just under three days in the hospital; the actual rate was slightly over one day.

The emergency department visit results were less dramatic, but still positive. Tier 1 participants were forecasted to visit the emergency department an average of 3.9 times in the 12 months after engagement; the actual visit rate was 3.6. Tier 2 participants were forecasted to visit the emergency department an average of 2.2 times; the actual visit rate was 1.8.

The improvement in inpatient hospital and emergency department utilization was part of a larger trend. Utilization and expenditures in both tier groups also declined for outpatient hospital, physician and behavioral health services⁴.

Total per member per month (PMPM) medical expenditures for all Tier 1 participants during the first 12 months following engagement were \$2,207, or eight percent lower than the forecasted amount of \$2,387; expenditures for months 13 to 24 following engagement were \$1,984, or 18 percent lower than the forecasted amount of \$2,417; expenditures for months 25

³ MEDai forecasts are for a twelve-month period. PHPG extended the forecasted values another 12 months through application of a trend rate. The methodology is described in detail in chapter two of the report.

⁴ Inpatient expenditures for admissions with a behavioral health diagnosis declined, while expenditures for outpatient services with a behavioral health diagnosis increased. Net behavioral health expenditures declined.

to 36 following engagement were \$1,731, or 28 percent lower than the forecasted amount of \$2,394.

Tier 2 participants incurred \$1,011 in total PMPM expenditures during the first 12 months following engagement, down 10 percent from the MEDai forecast of \$1,125; expenditures during months 13 to 24 totaled \$872, or 25 percent below the forecasted amount of \$1,169; expenditures during months 25 to 36 following engagement were \$854, or 30 percent below the forecasted amount of \$1,218.

Overall, medical expenditure savings attributable to nurse care management totaled \$127 PMPM during the first 12 months following engagement, \$310 PMPM for months 13 to 24 and \$416 for months 25 to 36.

Cost Effectiveness Analysis

PHPG expanded the expenditure forecast analysis by performing cost effectiveness tests for both tier groups. To evaluate cost effectiveness, PHPG calculated program administrative expenses and added them to the participant medical expenditures through SFY 2012. Total engaged member (participant) costs then were compared to MEDai and PHPG forecasted expenditures, both during and after engagement.

In SFY 2010, the program was found to be running a small deficit during the first 12 months of participant engagement, when front-end costs associated with providing preventive services and addressing deferred health needs were incurred, and administrative expenses were highest. However, the deficit converted to savings after month 12, when the impact of improved chronic care self management began to be felt. PHPG hypothesized at the time that, “These savings can be expected to outweigh front-end costs and begin producing aggregate program savings as the program continues to operate and mature.”

In SFY 2011, the addition of another year of experience did in fact result in greater program aggregate savings for both tier groups, a trend that continued in SFY 2012. The Tier 1 population, while generating a small deficit (four percent) during the first 12 months of engagement as measured against \$80 million in total medical claims costs, achieved significant savings (27 percent) in months 13 and beyond, as measured against \$109 million in total medical claims costs.

Tier 2 participants also generated a small deficit (two percent) during the first 12 months of engagement as measured against \$167 million in total medical claims costs; savings during the later period amounted to 30 percent, as measured against \$231 million in total claim costs.

Overall, the nurse care management portion of the SoonerCare HMP through SFY 2012 achieved aggregate savings in excess of \$93.1 million, or approximately 21 percent of total medical claims costs.

Practice Facilitation and Provider Education Evaluation

Overview

Telligen has a team of practice facilitators in Oklahoma providing one-on-one in-office assistance to OHCA-designated primary care providers. The program is voluntary and offered at no charge to the provider. Practice facilitators assist primary care providers and their office staff to improve their efficiency and quality of care through a combination of onsite and follow-up activities.

After a practice is selected for facilitation services, the practice facilitator works with the practice team, and consults with the OHCA as necessary, to outline the most appropriate implementation schedule of core components. Core practice facilitation components include:

- Foundational/infrastructural development;
- Full practice assessment/evaluation;
- Process improvement interventions; and
- Registry implementation.

The practice facilitator also audits charts of chronic disease patients to look for gaps in care. Based on findings of the assessments and audit, the practice facilitator works with the provider and staff to improve practice efficiency and effectiveness.

Providers engaged in practice facilitation also receive training in the CareMeasures™ Data Registry. CareMeasures™ is an electronic patient registry used by office personnel to securely collect clinical data on patients with chronic conditions selected by the practice facilitator for quality measurement purposes.

With the aid of the OHCA, practice facilitators organize, plan, and administer collaborative sessions to which all practice facilitation providers are invited. Reward incentives also are available to providers who participate in practice facilitation and meet reporting and quality improvement targets.

Telligen also is responsible for undertaking broad-based education through quarterly mailings to primary care providers throughout the state. The education addresses both treatment of chronic illnesses and delivery of preventive care.

Evaluation Findings

The practice facilitation and provider education evaluation included four components:

- Audit of Telligen operations;
- Practice facilitation site satisfaction survey;
- Expenditure trend analysis; and
- Cost effectiveness analysis.

Telligen Audit

PHPG's onsite audit examined Telligen's compliance with practice facilitation and provider education contractual standards. The standards examined included: practice facilitator staffing; timely completion of assessments and other onsite activities; completion of quarterly mailings and monthly collaboratives; and management of incentive payments. Telligen was found to be in compliance with contract standards.

Practice Facilitation Site Satisfaction Survey

PHPG conducts a survey of practice facilitation sites that inquires about awareness of SoonerCare HMP objectives and components; interactions with Telligen nurse care managers and practice facilitators; and the program's early impact with respect to patient management and outcomes.

Providers who have completed the onsite portion of practice facilitation view the SoonerCare HMP favorably. The most common reason cited for participating was to improve care management of patients with chronic conditions. Eighty-seven percent of respondents credited the program with helping them to achieve this objective.

Overall, 69 percent of the providers described themselves as "very satisfied" with the experience and another 26 percent as "somewhat satisfied". Nearly all (91 percent) would recommend the program to a colleague.

Providers also were asked if any of their patients were enrolled in nurse care management. Most answered yes and a strong majority (75 percent) credited nurse care managers with having a positive impact on their patients.

Practice Facilitation Quality of Care Analysis

Telligen generates monthly reports on the number of patients entered into the registry, by practice site and diagnostic category, and the portion in compliance with CareMeasures™ clinical measures. The reports include 29 diagnosis-specific clinical measures, six population-wide prevention measures and eight tobacco-cessation measures.

PHPG compared the final Telligen SFY 2012 report, containing data for June 2012, to the same reports for June 2011 (12-month longitudinal analysis) and June 2009 (36-month longitudinal analysis). The comparison to June 2009 was intended to identify quality of care trends going back to the start of the program.

In addition, PHPG's subcontractor APS calculated compliance percentages for the entire SoonerCare Medicaid population to serve as a HEDIS-like comparison, where applicable, to CareMeasures™ for the SFY 2012 period. To match the selected portion of the HMP population, APS selected SoonerCare members who had at least six months of enrollment in SFY 2012.

Finally, PHPG performed a separate analysis of 18 practices identified by the OHCA as "high buy-in" participants, meaning they had demonstrated a higher than average level of interest and commitment to the program. PHPG compared compliance percentages for these practices to other sites to document any differences in performance during SFY 2012.

Quality of Care analysis results were generally positive. Approximately 44 percent (19 out of 43) of the CareMeasures™ findings improved from SFY 2011 to SFY 2012. Twenty-one percent (9 out of 43) declined, excluding three measures that each declined by only 0.1 percent. The remaining measures did not change or could not be tracked longitudinally because there were fewer than five patients in the denominator in SFY 2011.

Fifty-one percent (22 out of 43) of the CareMeasures™ findings improved from SFY 2009 to SFY 2012. Thirty-three percent (14 out of 43) declined, although tobacco cessation measures accounted for six of the 14 falling measures.

During the period SFY 2011 to SFY 2012, chronic obstructive pulmonary disease (COPD) measures and several coronary artery disease measures demonstrated significant improvement. Over the longer span of SFY 2009 to SFY 2012, measures for asthma and diabetes showed the greatest improvement.

APS' comparison of practice facilitation patients to the general Medicaid population identified significant differences between the two groups. Patients of practice facilitation providers showed higher compliance rates than the general Medicaid population on eight of nine measures for which data was available to make a comparison.

The comparison of “high buy in” practices to other practice facilitation sites was similarly instructive. The high buy-in practices demonstrated better performance on 78 percent (18 of 23) of measures for which a comparison could be made.

Expenditure Analysis

Practice facilitation, if effective, should have an observable impact on PMPM expenditures for patients with targeted chronic conditions. Improvement in the quality of care should yield better outcomes in the form of lower hospitalization rates and acute care costs.

Similar to the method used for the nurse care management evaluation, PHPG analyzed per member per month (PMPM) medical expenditures for patients treated during the evaluation period compared to MEDai forecasts. In the previous Annual Report for SFY 2011, PHPG calculated PMPM cost effectiveness by comparing actual and forecasted costs for the first 24 months following provider initiation. Since the number of providers remained relatively static in SFY 2012, PHPG elected to build on the SFY 2011 analysis by evaluating expenditures during months 25 and beyond following provider initiation⁵.

The PMPM medical expenditures for all patients, regardless of condition, were below forecast across the entire analysis time period. Through SFY 2012, average savings equaled \$91 PMPM, or nearly 14 percent.

Cost Effectiveness Analysis

PHPG expanded the expenditure trend analysis by performing cost effectiveness tests for practice facilitation, similar to the ones performed for nurse care management. PMPM expenditures for practice facilitation patients (post-provider initiation) averaged \$579 through SFY 2012, after factoring-in program administrative expenses. This compared favorably to a \$653 PMPM expenditure forecast for the same patients absent practice facilitation.

The net difference in PMPM expenditures (forecast minus actual) through SFY 2012 was \$74.91. This figure, when multiplied by practice facilitation site member months yields ***aggregate savings of \$46.1 million (state and federal dollars), or 11.5 percent as measured against total medical claims costs.***

⁵ The analysis encompassed all practice facilitation sites, including the small number who began facilitation in SFY 2011 and SFY 2012. Most sites, however, had 25 or more months of experience in the program.

Conclusions

The SoonerCare HMP completed its fourth full year of operations with a high degree of eligible member enrollment and well-defined structures and processes for conducting nurse care management, practice facilitation and provider education. These program components must necessarily be in place for performance- and outcome-related objectives to be met.

Program participants, both members and providers, continue to report high levels of satisfaction with their experience and decision to enroll. A large percentage of participating members with improved health status attribute the change to nurse care management, while providers generally credit the program with raising their quality of care for patients with chronic illnesses.

Quality of care data also continues to show promise, with participant compliance rates in many categories improving over time and typically exceeding comparison group rates.

The program's impact on service utilization and expenditures continues to increase year over year. Aggregate savings across the two program components now stand at nearly \$140 million, even after factoring in administrative costs. ***From a return on investment perspective, the SoonerCare HMP has generated over six dollars in medical savings for every dollar in administrative expenditures.***

The positive trend lines observed in SFY 2012 suggest the program's full impact is yet to be realized. Over the next several years, its contribution to the management of chronic illness in Oklahoma, and its potential for replication in other states, will become more defined. Progress will continue to be tracked in 2013, with a fifth annual report and comprehensive final report to be issued in 2014.

CHAPTER 1 – INTRODUCTION

Chronic Disease Management

Chronic diseases – such as cardiovascular disease and diabetes – are the leading causes of death and disability in the United States, accounting for nearly 70 percent of all deaths each year.⁶ Almost half of all American adults struggle with a chronic health condition that affects performance of their daily activities.⁷

Chronic diseases are also among the most costly of all health problems, accounting for more than 75 percent of total U.S. health care spending. Providing care to individuals with chronic diseases, many of whom meet the federal disability standard, has placed a significant burden on state Medicaid budgets.

Traditional case and disease management programs target single episodes of care or disease systems, but do not take into account the entire social, educational, behavioral and physical health needs of persons with chronic conditions. Research into holistic models has shown that sustained improvement requires the engagement of the member, provider, the member's support system and community resources to address total needs.

Holistic programs seek to address proactively the individual needs of patients through planned, ongoing follow-up, assessment and education.⁸ Under the Chronic Care Model, as first developed by Dr. Edward H. Wagner, community providers collaborate to effect positive changes for health care recipients with chronic diseases.

These interactions include systematic assessments, attention to treatment guidelines and support to empower patients to become self-managers of their own care. Continuous follow-up care and the establishment of clinical information systems to track patient care are also components vital to improving chronic illness management.

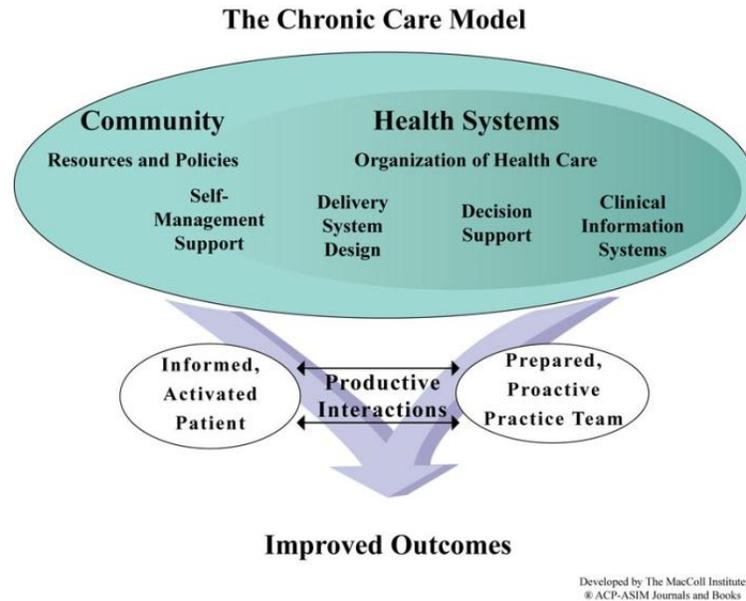
⁶ Chronic Disease Control and Health Promotion Statistics from the U.S. Department of Health and Human Services, Centers for Disease Control and Prevention.

⁷ Chronic Disease Overview from the U.S. Department of Health and Human Services, Centers for Disease Control and Prevention.

⁸ Wagner, E.H., "Chronic Disease Management: What Will It Take to Improve Care for Chronic Illness?," *Effective Clinical Practice*, 1:2-4 (1998).

Exhibit 1-1 illustrates the basic components and interrelationships of the Chronic Care Model.

Exhibit 1-1 – The Chronic Care Model



Creation of the SoonerCare Health Management Program

Under the Oklahoma Medicaid Reform Act of 2006 (HB2842), the Oklahoma Legislature directed the Oklahoma Health Care Authority (OHCA) to develop and implement a management program for persons with chronic diseases, including, but not limited to, asthma, chronic obstructive pulmonary disease, congestive heart failure, diabetes and renal disease. The program would address the health needs of chronically ill SoonerCare members while reducing unnecessary medical expenditures at a time of significant fiscal constraints.

More specifically and as envisioned by the OHCA, the SoonerCare Health Management Program would:

- Evaluate and manage participants with chronic conditions;
- Improve participants' health status and medical adherence;
- Increase participant disease literacy and self-management skills;
- Coordinate and reduce unnecessary or inappropriate medication usage by participants;
- Reduce hospital admissions and emergency department use by participants;
- Improve primary care provider adherence to evidence-based guidelines and best practices measures;
- Coordinate participant care, including the establishment of coordination between providers, participants, and community resources;
- Regularly report clinical performance and outcome measures;

- Regularly report SoonerCare health care expenditures of participants; and
- Measure provider and participant satisfaction with the program.

The OHCA moved from concept to reality by creating a program with two major components. The first component, nurse care management, is directed at members with one or more chronic conditions. The second component, practice facilitation and provider education, is directed at primary care providers treating the chronically ill.

Nurse Care Management

Nurse care management targets SoonerCare members with chronic conditions identified as being at high risk for both adverse outcomes and significant future medical costs. The members are stratified into two levels of care, with the highest-risk segment placed in “Tier 1” and the remainder in “Tier 2.”

Prospective participants are contacted and “enrolled” in their appropriate tier. After enrollment, participants are “engaged” through initiation of care management activities.

Tier 1 participants receive face-to-face nurse care management while Tier 2 participants receive telephonic nurse care management. The OHCA’s objective is to provide services at any given time to about 1,000 members in Tier 1 and about 4,000 members in Tier 2.

Chapter two includes detailed information on nurse care management staffing, enrollment and services.

Practice Facilitation and Provider Education

Selected participating providers receive one-on-one practice facilitation through the SoonerCare HMP. Practice facilitators collaborate with providers and office staff to improve the quality of care through implementation of enhanced disease management and improved patient tracking and reporting systems.

The provider education component targets primary care providers throughout the state who treat patients with chronic illnesses. The program incorporates elements of the Chronic Care Model by inviting primary care practices to engage in collaboratives focused on health management and evidence-based guidelines.

Chapter three includes detailed information on practice facilitation staffing, enrollment and services.

SoonerCare HMP Operations

The OHCA contracted with a vendor, Telligen, to administer the SoonerCare HMP in accordance with agency specifications. Telligen (previously known as the Iowa Foundation for Medical Care) is a national quality improvement and medical management firm specializing in care, quality and information management services. Telligen staff members provide nurse care management to SoonerCare HMP participants and practice facilitation to OHCA-designated primary care providers.

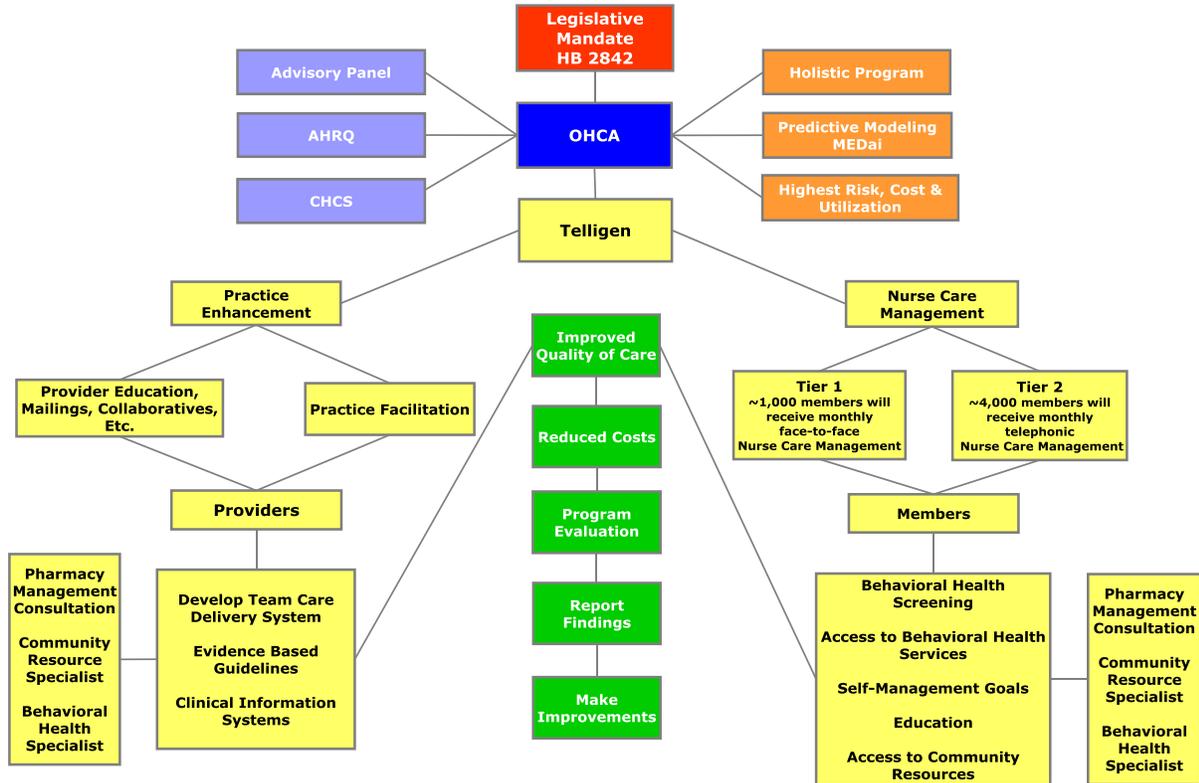
Telligen receives monthly per member payments for each participant engaged in nurse care management; the SFY 2012 payment was \$195 per month for each Tier 1 participant (up to 1,000 participants) and \$49 per month for each Tier 2 participant (up to 4,000 participants). Telligen also receives a monthly payment for each practice facilitator, set at \$20,414 in SFY 2012.

A second firm, MEDai, already was serving as a subcontractor to Hewlett Packard (HP), the OHCA's Medicaid fiscal intermediary, at the time the SoonerCare HMP was developed. The OHCA capitalized on this existing relationship by utilizing MEDai to assist in identifying candidates for enrollment in the HMP based on historical and predicted service utilization.

The OHCA oversees SoonerCare HMP activities through a dedicated unit whose director is an Oklahoma-licensed physician. The unit facilitates the identification and recruitment of eligible beneficiaries and providers and conducts monitoring activities on an ongoing basis.

Exhibit 1-2 summarizes the major components of the SoonerCare Health Management Program.

Exhibit 1-2 – SoonerCare HMP Program Overview



Source: Oklahoma Health Care Authority

SoonerCare HMP Independent Evaluation

The OHCA has retained the Pacific Health Policy Group (PHPG) and its partner, APS Healthcare, to conduct an independent evaluation of the SoonerCare HMP. PHPG and APS Healthcare are evaluating the program’s impact on beneficiaries, providers and the health care system as a whole with respect to:

1. Utilization of preventive and chronic care management services and adherence to national, evidence-based disease management practice guidelines;
2. Level of care management and coordination between providers, care managers, the member and others involved in his/her care;
3. Increased member self-management of chronic conditions;

4. Member satisfaction and perceived quality of life;
5. Provider participation rates and satisfaction; and
6. Avoidance of unnecessary service utilization (e.g., inpatient days; emergency department visits) and associated expenditures.

PHPG is presenting evaluation findings in a series of reports issued over a five-year period. The first two reports, Baseline Analysis and Implementation Evaluation, were issued in the fall of 2009 to provide a framework for ongoing evaluation activities. Member and provider Satisfaction and Self-Management reports containing survey, focus group and interview findings were issued in the fall of 2009 and spring of 2010, 2011 and 2012.

This is the fourth Annual Evaluation report addressing progress toward achievement of program objectives. The first Annual Evaluation report was issued in mid-2010, the second in mid-2011, and the third in mid-2012.

Exhibit 1-3 lists the reports and their approximate issuance dates.

Exhibit 1-3 - SoonerCare HMP Program Evaluation Reports

Evaluation Report	Description	Issue Date
Baseline Analysis Report	Demographic, utilization and expenditure data prior to HMP implementation, for use in measuring program impact over time. Also, delineation of evaluation measures to be used in tracking program progress	Fall 2009
Implementation Evaluation Report	Review of HMP program start-up activities and initial cost impact for period February – June 2008	Fall 2009
Initial Satisfaction and Self-Management Report	Member and provider satisfaction survey results	Fall 2009
First Annual Report	Program progress against evaluation measures, including cost impact	Winter 2010
Second Satisfaction and Self-Management Report	Member and provider satisfaction survey results	Spring 2010
Second Annual Report	Program progress against evaluation measures, including cost impact	Winter 2011
Third Satisfaction and Self-Management Report	Member and provider satisfaction survey results	Summer 2011
Third Annual Report	Program progress against evaluation measures, including cost impact	Spring 2012
Fourth Satisfaction and Self-Management Report	Member and provider satisfaction survey results	Spring 2012
Fourth Annual Report	Program progress against evaluation measures, including cost impact	Winter 2013
Fifth Satisfaction and Self-Management Report	Member and provider satisfaction survey results	Spring 2013
Fifth Annual Report	Program progress against evaluation measures, including cost impact	Winter 2014
Sixth Satisfaction and Self-Management Report	Member and provider satisfaction survey results	Spring 2014
Comprehensive Program Evaluation and Cost Savings Report	Final evaluation results	Summer 2014

Annual Evaluation Report Scope and Methodology

The fourth Annual Evaluation report addresses the performance of the SoonerCare HMP in State Fiscal Year 2012 (July 2011 – June 2012). The report examines the SoonerCare HMP across a series of measures tied to the broad evaluation criteria presented below⁹.

The measures fall into four categories:

- *Structure Measures* that evaluate whether the SoonerCare HMP vendor (Telligen) is meeting contractual requirements with respect to key program staff;
- *Process Measures* that evaluate whether the SoonerCare HMP vendor is meeting contractual requirements with respect to member engagement, assessment and care management contacts, and provider practice facilitation, education and incentive payments;
- *Performance Measures* that evaluate the program's impact on quality of care for members falling into one or more selected chronic disease groups, as determined through clinical reviews of administrative claims data and medical records; and
- *Outcome Measures* that evaluate the program's ultimate impact with respect to reducing unnecessary service utilization and expenditures and achieving high levels of member and provider participation and satisfaction.

PHPG and APS Healthcare collected data for the fourth annual evaluation through a variety of methods. These included an onsite audit of Telligen, claims and medical record reviews and surveys/focus groups/interviews of nurse care management and practice facilitation participants.

Onsite Audit: PHPG conducted the onsite audit in November 2012. The purpose of the audit was to validate staffing and operational information submitted to the OHCA by Telligen through standardized reports over the course of the year. PHPG interviewed Telligen staff and examined primary source materials to confirm the accuracy of the Telligen reports and determine Telligen's compliance with contractual requirements.

Participant Self-Management and Satisfaction: PHPG conducted telephone surveys and focus groups of SoonerCare HMP participants, to inquire about their reasons for enrolling, acquired self-management skills and satisfaction with the program. In addition, PHPG conducted follow-up interviews with members six months after their initial surveys to obtain updated information. PHPG also surveyed individuals who elected not to enroll when offered the

⁹ The measures are identified throughout the body of this report. A consolidated list is included in the Baseline Report.

opportunity and former participants who dropped out of the program, to explore the basis for their decisions.

Provider Satisfaction: PHPG conducted telephone surveys and follow-up interviews of practice facilitation sites, to inquire about their reasons for participation, the impact on their practices and satisfaction with the program.

Quality of care Analysis: APS Healthcare used administrative (paid claims) data to evaluate the SoonerCare HMP's impact on participant care and health status. PHPG used CareMeasures™ Data Registry reports produced by Telligen to conduct a similar evaluation of the quality of care at practice facilitation sites.

Utilization, Expenditure and Cost Effectiveness Analysis: PHPG obtained paid claims data for members participating in the SoonerCare HMP and members eligible for, but not enrolled in the program. PHPG analyzed the data to document the demographic characteristics of both groups and to estimate the impact of nurse care management on service utilization and expenditures. PHPG obtained MEDai member forecast data to estimate the impact of the program by measuring actual expenditures against forecasted expenditures. PHPG similarly analyzed paid claims for SoonerCare members with targeted chronic conditions treated at practice facilitation provider sites to estimate the impact of practice facilitation on service utilization and expenditures.

The evaluation methodology is described in more detail in the body of the report.

Report Chapters

Chapter two presents the results of the nurse care management evaluation. This includes Telligen audit findings, member (participant) survey and focus group data, quality of care study findings, utilization/expenditure data and results of the nurse care management cost-effectiveness analysis. The chapter concludes with a summary of key findings.

Chapter three presents the results of the practice facilitation and provider education evaluation. This includes the provider portion of the Telligen audit, practice facilitation site survey data, quality of care study findings and results of the practice facilitation expenditure and cost-effectiveness analysis. The chapter concludes with a summary of key findings.

Chapter four presents an analysis of the program's return on investment through the end of SFY 2012.

The report also contains a series of appendices with supporting documentation. The appendices are identified in the body of the report.

Interpretation of Findings

The data presented in this report is for the SoonerCare HMP's fourth full year of operations. The findings reflect a program that is still evolving and maturing and therefore may understate its potential longer-term impact.

The program's ultimate effectiveness will be determined over the full course of the evaluation. Findings should be interpreted with this in mind.

CHAPTER 2 – NURSE CARE MANAGEMENT EVALUATION

This chapter presents evaluation findings for the nurse care management component of the SoonerCare HMP. The chapter begins with an overview of the nurse care management model and participants, followed by evaluation results in five areas:

- Onsite audit of Telligent
- Member self-management and satisfaction survey and focus groups
- Quality of care study
- Utilization and expenditure analysis
- Cost effectiveness analysis

Overview of the Nurse Care Management Model

The SoonerCare HMP targets members with chronic conditions who have been identified as being at high risk for both adverse outcomes and increased health care expenditures, and whose future costs could potentially be reduced, or “impacted” through care management. The “high risk” population contains a disproportionate number of persons with co-morbidities, including combinations of such diseases as congestive heart failure, chronic obstructive pulmonary disease (COPD), coronary artery disease, hypertension and diabetes.

A core objective of the program is to better coordinate, or integrate, services for beneficiaries whose care has previously been unmanaged. Accordingly, the SoonerCare HMP excludes members in nursing homes, institutional settings or other “waiver” eligibility categories – settings in which integrated care should already be provided.

For the same reason, the SoonerCare HMP also excludes members who are enrolled in other disease management programs or have third party comprehensive medical insurance. In addition, the program excludes members with End Stage Renal Disease (ESRD), who are undergoing dialysis, have had a transplant or are pregnant.¹⁰

The OHCA uses MEDai predictive modeling software to identify SoonerCare members with chronic conditions who would be eligible for the SoonerCare HMP. Once identified, the OHCA stratifies these members into tiers based on forecasted risk and service expenditures. Members predicted to be at highest risk for adverse outcomes and increased service expenditures are placed into Tier 1. Members predicted to be at high risk for adverse outcomes and next highest service expenditures are placed into Tier 2.

¹⁰ SoonerCare HMP members who become pregnant after enrolling are not automatically excluded or terminated from the program but are given the opportunity to continue receiving nurse care management.

Telligen is required to make up to five attempts by telephone and mail (using personalized letters) to contact eligible members. Once contact is made, and the member agrees to participate, he or she is considered “enrolled” and is assigned to a nurse care manager. The nurse care manager is required to conduct an assessment and develop a plan-of-care for the member, who then is considered “engaged.” The assessment and care planning process is face-to-face for Tier 1 participants and telephonic for Tier 2.

The initial assessment is required to be holistic in scope and includes health literacy, self-management skills and baseline function (clinical, psychosocial and medical history). The health care literacy portion enables the nurse care manager to determine the participant’s capacity to process and understand basic health information and care needs in order to make appropriate health care decisions.

Nurse care managers also are required to perform an eighteen-item behavioral health assessment during the initial encounter that includes the Patient Health Questionnaire (PHQ-9) depression-screening tool. Individuals who score in the moderate or higher range are offered referrals and contacts for behavioral health services.

Nurse care managers use assessment results to develop individualized care plans that establish goals and objectives to address the participant’s current health needs. The care plan seeks to help participants better manage their health, understand the appropriate use of health care resources and identify changes in their health.

Registered nurse care managers must attempt to provide at least monthly face-to-face visits to Tier 1 participants. These nurses are required to have at least three years of clinical experience and are strategically located around the state to facilitate assessments and subsequent follow-up visits.

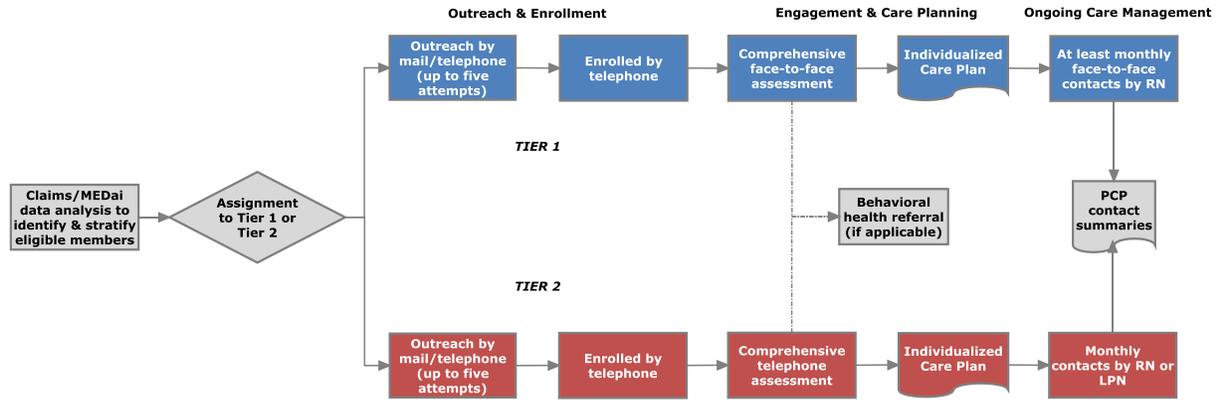
Tier 2 participants receive telephonic services from registered nurses and licensed practical nurses. Tier 2 nurse care managers are centrally located at the SoonerCare HMP Call Center, which is in West Des Moines, Iowa.

Nurse care managers serve as a link between the member, primary care providers, and other resources such as behavioral health services, pharmacotherapy management, and community services. Providers receive contact summaries from nurse care managers that include information on the participant’s health status, health literacy, medical adherence assessment data, depression screen results and any social service or other referrals.

Participants graduate from the program upon meeting criteria established by the OHCA and Telligen. The graduation process is described in detail later in the chapter.

Exhibit 2-1 below summarizes the SoonerCare HMP stratification, enrollment and engagement steps.

Exhibit 2-1 – Nurse Care Management Process



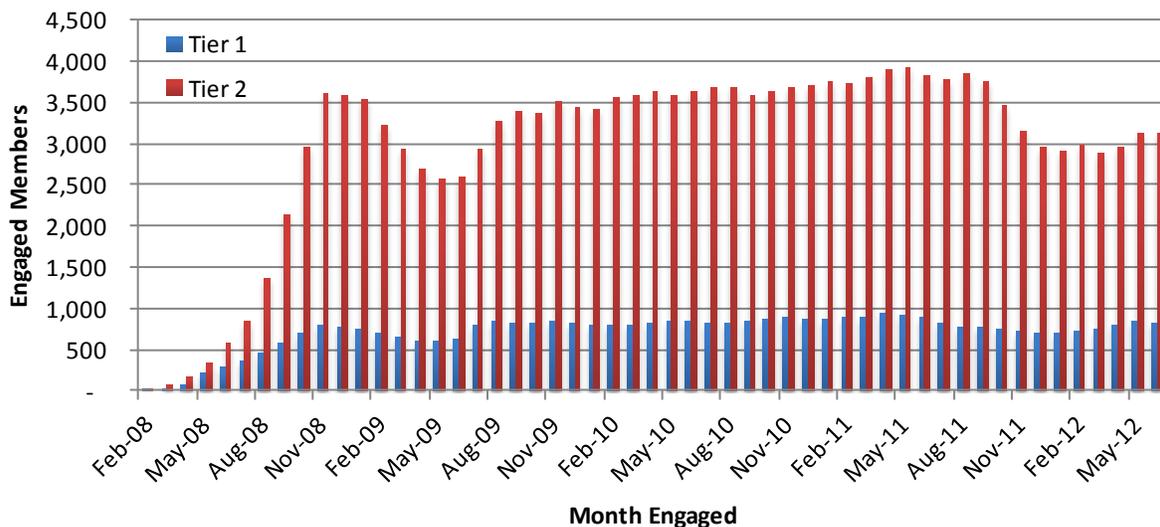
Nurse Care Management Participants

The OHCA’s goal at the outset of the SoonerCare HMP was to provide nurse care management at any one time to 1,000 Tier 1 participants and 4,000 Tier 2 participants. However, the final numbers were to be contingent on available funding and identification of a sufficient number of SoonerCare members who met enrollment criteria.

The program enjoyed steady enrollment growth in SFY 2008 and the first half of SFY 2009 (July to December 2008), before leveling off in January 2009 (see exhibit 2-2). Enrollment in both tiers approached full capacity during SFY 2010 and remained at capacity in SFY 2011. In SFY 2012, a concerted effort was made to graduate participants with extended periods of engagement, resulting in a decrease in enrollment during the first half of the fiscal year (July to December 2011).

As illustrated below, participation rates began to climb toward capacity again in January 2012 and continued to rise through the remainder of the state fiscal year.

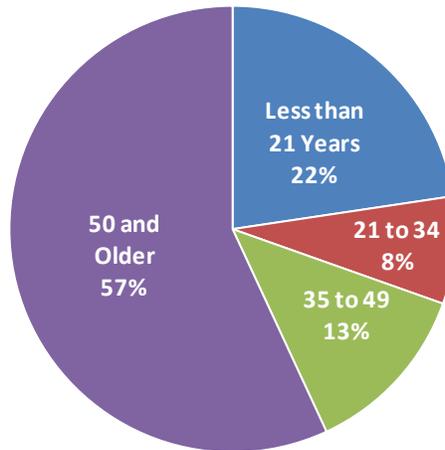
Exhibit 2-2 – Cumulative Engagement Totals per Month, February 2008 - June 2012



Participants by Age

Not surprisingly, SoonerCare HMP participants are older than the general Medicaid population. Approximately 22 percent of HMP participants are under the age of 21, compared to 65 percent of the overall SoonerCare population (see exhibit 2-3).¹¹

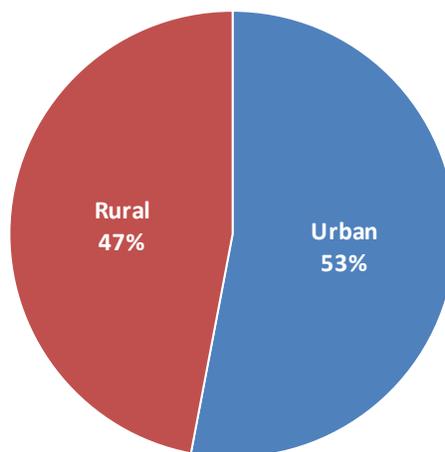
Exhibit 2-3 – Age Distribution for Participants



Participants by Place of Residence

Slightly more nurse care management participants (53 percent) live in urban than rural areas (53 percent versus 47 percent) (see exhibit 2-4). The urban portions of the state include the greater Oklahoma City, Tulsa and Lawton metropolitan areas.

Exhibit 2-4 – Urban/Rural Mix

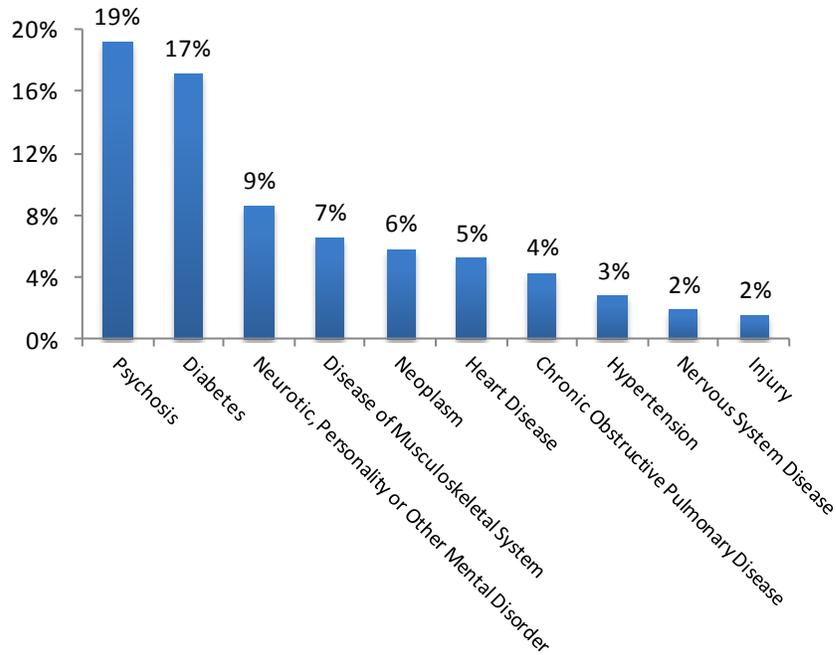


¹¹ Source: OHCA Sooner Care Fast Facts, June 2012.

Participants by Most Common Diagnoses

Program participants have been treated for numerous chronic and acute physical conditions. The most common diagnostic category within Tier 1 was psychosis,¹² which accounted for 19 percent of participants, followed by diabetes at 17 percent (see exhibit 2-5). The top ten conditions together accounted for 73 percent of the Tier 1 population.

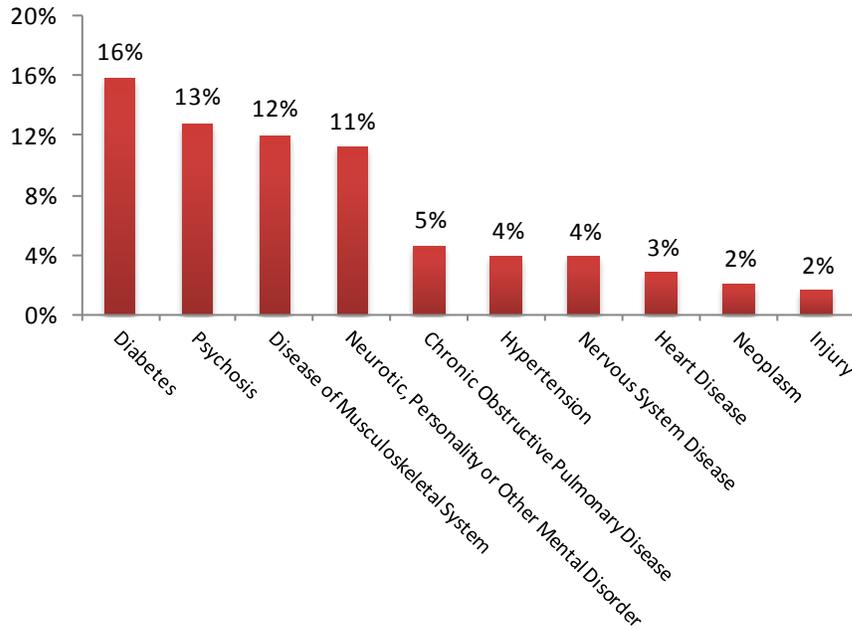
Exhibit 2-5 – Most Common Diagnoses for Tier 1 Participants



¹² Based on primary diagnosis total paid claim amounts.

Tier 2 participants resembled, but were not identical to, their Tier 1 counterparts. Diabetes was the most common diagnosis for Tier 2 participants, accounting for 16 percent of participants; psychosis was the second most common at 13 percent (see exhibit 2-6). The top ten conditions in total accounted for 71 percent of the Tier 2 population.

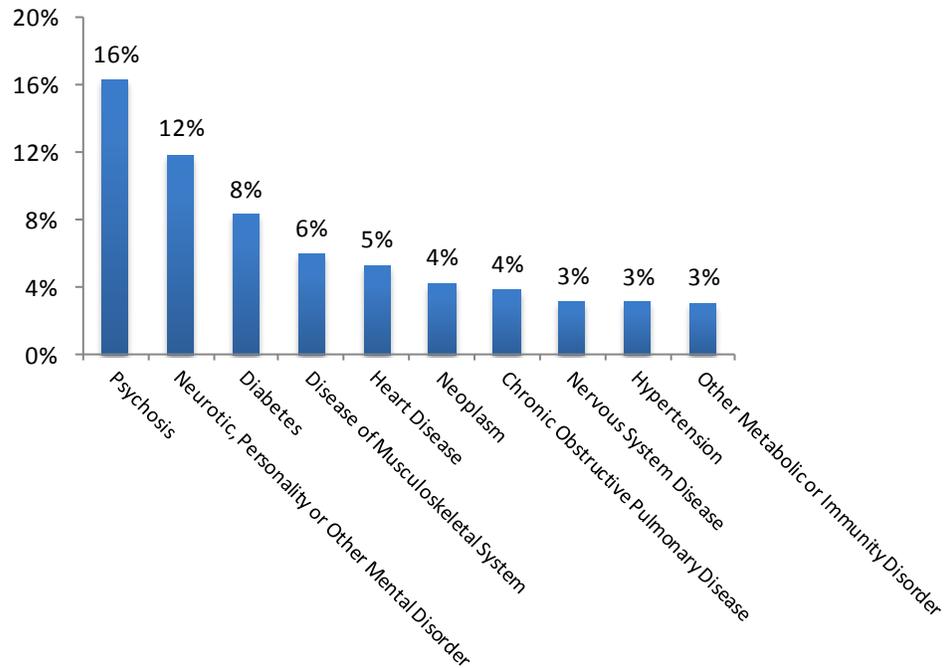
Exhibit 2-6 – Most Common Diagnoses for Tier 2 Participants



Participants by Most Expensive Diagnoses

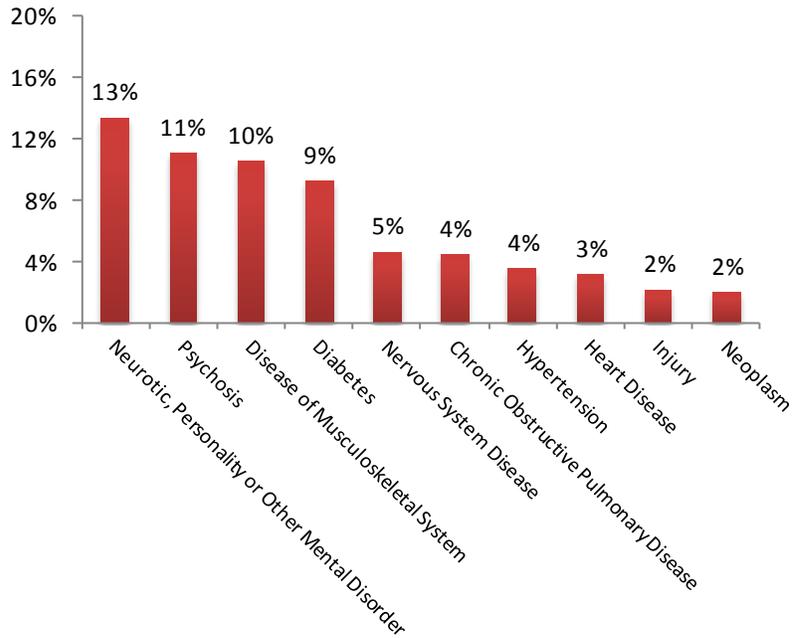
Psychosis was the most expensive diagnostic category within Tier 1 based on paid claim amounts. “Neurotic, personality or other mental disorder” was second, followed by a mixture of chronic and acute conditions (see exhibit 2-7). The top ten conditions together accounted for 65 percent of the Tier 1 population.

Exhibit 2-7 – Most Expensive Diagnoses for Tier 1 Participants



“Neurotic, personality or other mental disorder” was the most costly diagnosis among Tier 2 participants, followed closely by psychosis, musculoskeletal disease and diabetes (see exhibit 2-8). The top ten conditions in total accounted for 64 percent of the Tier 2 population.

Exhibit 2-8 – Most Expensive Diagnoses for Tier 2 Participants

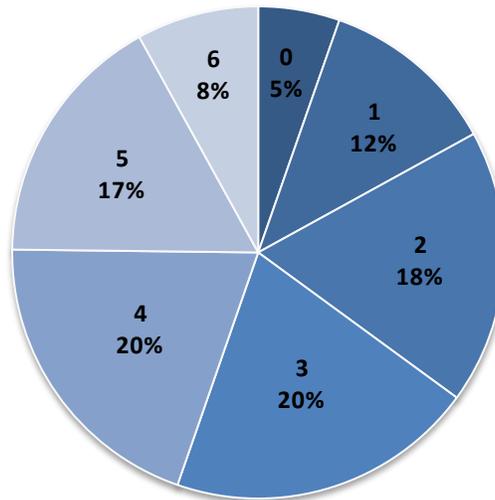


Co-morbidities among Participants

The SoonerCare HMP's focus on holistic care rather than management of a single disease is appropriate given the prevalence of co-morbidities in the nurse care managed population.

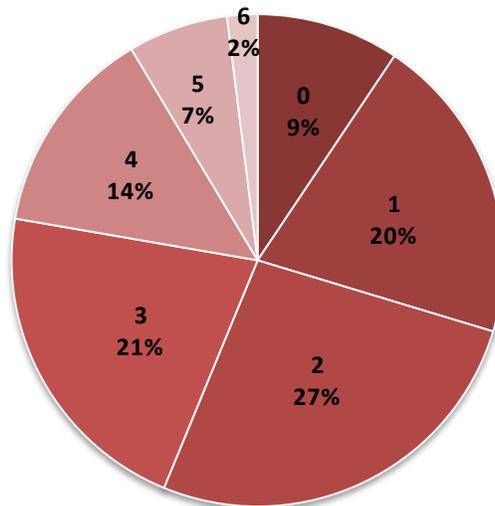
PHPG examined the number of physical chronic conditions per participant and found that 83 percent of Tier 1 participants through SFY 2012 had at least two of the six most frequently observed chronic physical conditions (asthma, COPD, coronary artery disease, diabetes, heart failure and hypertension) (see exhibit 2-9).

Exhibit 2-9 – Number of Physical Health Chronic Conditions – Tier 1



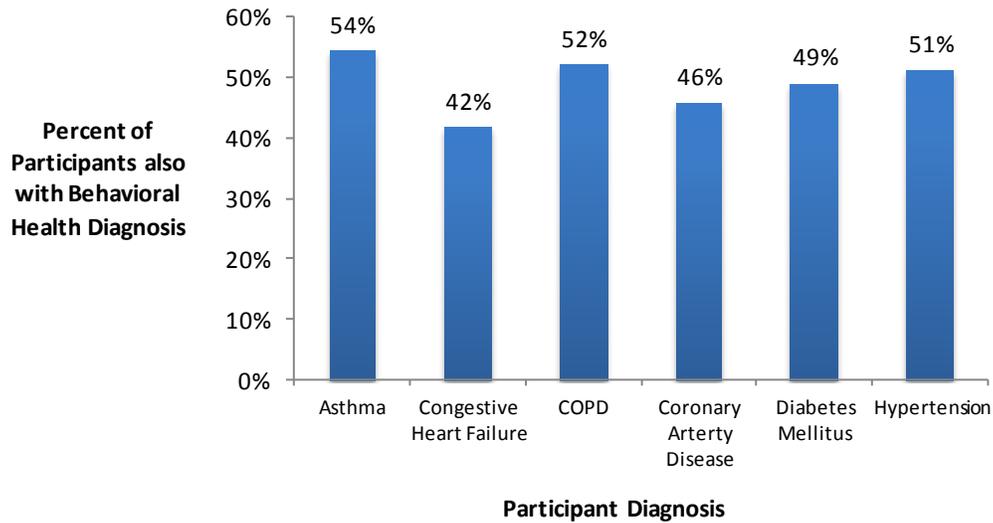
The co-morbidity rate was lower among Tier 2 than Tier 1 participants but still stood at 71 percent (see exhibit 2-10).

Exhibit 2-10 – Number of Physical Health Chronic Conditions – Tier 2



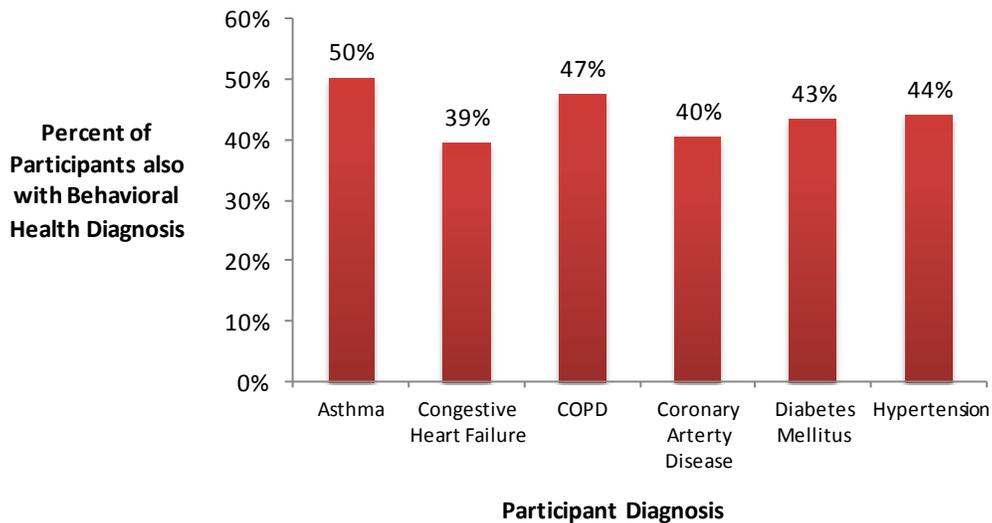
Nearly 48 percent of the Tier 1 population had physical/behavioral health co-morbidities, although the rate varied depending on the physical condition. The prevalence ranged from about 42 percent in the case of persons with heart failure up to 54 percent among persons with asthma (see exhibit 2-11).¹³

Exhibit 2-11 – Behavioral Health Co-morbidity Rate – Tier 1



Tier 2 participants were somewhat less likely to have physical/behavioral health co-morbidities, although the rate was still significant (see exhibit 2-12).

Exhibit 2-12 – Behavioral Health Co-morbidity Rate – Tier 2



¹³ Behavioral health comorbidity defined as diagnosis codes 290-319 being one of the participant’s top three most common or most expensive diagnosis, by claim count and paid amount, respectively.

Conclusion

Overall, Tier 1 and Tier 2 demonstrate the characteristics expected of a population that potentially could benefit from care management. The greater number of co-morbidities found among Tier 1 participants also suggests that the enrollment process is distinguishing appropriately based on complexity of need when making tier assignments.

The population's characteristics have remained relatively stable since the program's inception. Early adjustments made to the program, such as placing a greater emphasis on behavioral expertise within the nurse care management structure, have contributed to its efficacy, as documented in the remainder of the chapter.

Telligen Onsite Audit – Nurse Care Management

In November 2012, PHPG performed an onsite audit of Telligen at the firm’s Oklahoma City office to verify Telligen compliance with contractual standards related to staffing, member (participant) enrollment, engagement and ongoing contacts. (In some cases, Telligen was evaluated against program objectives, where formal standards did not apply.) PHPG also compared audit findings to reports previously submitted by Telligen to the OHCA, to validate the accuracy of the Telligen data.

The specific evaluation measures addressed through the audit included both “structure” and “process” items, as summarized in exhibit 2-13 below.

Exhibit 2-13 – Onsite Evaluation Measures – Nurse Care Management

Measure Type	Measure	Applies to
Structure	Nurse care manager Tier 1 staffing	Tier 1 participants
	Nurse care manager Tier 2 staffing	Tier 2 participants
Process	Percent of available slots filled	All participants
	Timely completion of assessment, care plan and education	All participants
	Monthly contact with participant	All participants
	Quarterly contact with PCP	All participants
	Behavioral health referral follow-up	All participants
	Graduation rate from Tier 1 to Tier 2	Tier 1 participants
	Graduation rate from HMP	All participants

Telligen Nurse Care Manager Staffing (Tier 1 and 2)

Overview: Telligen is required to assign Tier 1 participants to registered nurse care managers with at least three years of clinical experience. The average caseload for Tier 1 nurse care managers may not exceed 75-to-1, although individual care managers may have larger caseloads so long as they are able to fulfill their face-to-face care management duties.

Telligen is required to assign Tier 2 participants to registered nurse or licensed practical nurse care managers located at the SoonerCare HMP Call Center in West Des Moines, Iowa. Tier 2 nurse care manager caseloads may not exceed 150-to-1.

Evaluation Findings: Telligen reported staff turnovers among Tier 1 and Tier 2 nurse care managers as a result of joint quality assurance and program improvement efforts by OHCA and Telligen management during SFY 2012. The changes made included centralizing the management of both Tier 1 and Tier 2 nurse care managers under a single manager based in Oklahoma City and consolidating administrative and clerical positions into Tier 2 nurse care manager responsibilities.

PHPG examined nurse care manager staffing records, by tier, for the last three months of SFY 2012 (see exhibit 2-14). During the three-month period covered by the audit, Telligen maintained an average Tier 1 caseload of 74 (rounding up from 73.7), although the average in one month (May) was 76. In June 2012, Telligen reported interviewing individuals to fill a vacant Tier 1 nurse care manager position. The manager of the nurse care managers took on an active caseload during this period.

Exhibit 2-14 – Tier 1 Nurse Care Manager Average Caseloads for April through June 2012¹⁴

Month	Number of Staff	Caseload Range	Average
April 2012	12	38-86	71
May 2012	12	62-90	76
June 2012	12*	39-84	74
Three-Month Average			74

*This measurement period included the manager of Tier 1 and Tier 2 nurse care managers.

During the three-month period covered by the audit, Telligen maintained an average Tier 2 caseload of 174 (rounding down from 174.3) and was in excess of the 150-to-1 standard in all three months (see exhibit 2-15). In June 2012, Telligen reported interviewing individuals to fill Tier 2 nurse care manager positions, including a Tier 2 team lead position.

Exhibit 2-15 – Tier 2 Nurse Care Manager Average Caseloads for April through June 2012

Month	Number of Staff	Caseload Range	Average
April 2012	20	93-204	165
May 2012	20	30-210	168
June 2012	17	179-205	190
Three-Month Average			174

¹⁴ Exhibits 2-13 and 2-14 include nurse care managers who began work and had an active caseload (as indicated in the Telligen Visit Outcomes Report) or were terminated within the month.

The number of cases a nurse care manager may have in a particular month can fluctuate. Nurse care managers often experience an increase in their caseload when a member of the team leaves or takes a leave of absence.

When this occurs, the departing nurse care manager’s caseload is divided among more experienced members of the care team and/or management until the position is filled or the individual returns. New nurse care managers gradually are brought up to a full caseload. Some nurses also may temporarily carry a larger caseload if some of their cases are due to be closed at month’s end, for example due to loss of SoonerCare eligibility or graduation from the program.

Conclusion: As with previous evaluation periods, Telligen largely met the staffing standard for Tier 1 staffing, but was above the standard for Tier 2 staffing (see exhibits 2-16 and 2-17). Tier 2 caseloads have consistently been higher over the course of the program, although this does not necessarily mean that staffing levels are insufficient to provide effective care management.

Exhibit 2-16 – Comparison of Tier 1 Nurse Care Manager Average Caseloads for SFYs 2009 through 2012

Summary of Findings for SFY 2009-2012				
	SFY 2009 Findings (April – June 2009)	SFY 2010 Findings (April – June 2010)	SFY 2011 Findings (April – June 2011)	SFY 2012 Findings (April – June 2012)
Average Number of Staff	14	13	14	12
Average Caseload	54	73	71	74

Exhibit 2-17 – Comparison of Tier 2 Nurse Care Manager Average Caseloads for SFYs 2009 through 2012

Summary of Findings for SFY 2009-2012				
	SFY 2009 Findings (April – June 2009)	SFY 2010 Findings (April – June 2010)	SFY 2011 Findings (April – June 2011)	SFY 2012 Findings (April – June 2012)
Average Number of Staff	22	21	24	19
Average Caseload	138	183	169	174

Percentage of Available Slots Filled, by Tier

Overview: The OHCA’s goal at the outset of the SoonerCare HMP was for nurse care management services to be provided at any one time to 1,000 Tier 1 participants and 4,000 Tier 2 participants. However, the final numbers would be contingent on available funding and identification of a sufficient number of SoonerCare members who met enrollment criteria.

Evaluation Findings: Participation growth was hampered in SFY 2009 by disenrollments from the program. Telligen disenrolled any participant who could not be contacted by his or her nurse care manager during the month. The OHCA responded to the participation drop by enforcing contract standards requiring Telligen to make at least five contact attempts before disenrolling a participant. The total number of participants began to climb again in the spring of 2009 following the OHCA’s actions.

Enrollment continued to grow in SFY 2010 and SFY 2011, with Tier 1 membership exceeding capacity in April 2011 and remaining near capacity in May and June 2011. Tier 2 membership exceeded capacity during April through June 2011.

Tier 1 and Tier 2 engagement dropped slightly during the SFY 2012 evaluation period (see exhibit 2-18). As reported by Telligen, approximately 35 percent of individuals have participated in the program for over 12 months.

Exhibit 2-18 – Engagement Totals from April through June 2012 as Reported by Telligen

Month	Tier	Cumulative Total Engagement	Percent of Available Slots Filled by Tier
April 2012	1	854	85.4%
	2	3,309	82.7%
May 2012	1	912	91.2%
	2	3,376	84.4%
June 2012	1	888	88.8%
	2	3,242	81.1%

In April 2011, the OHCA assigned a nurse from its staff to assist in the evaluation of the appropriateness of continued engagement among longer term participants. Between July and September 2011, the OHCA determined that many of the members enrolled in the SoonerCare HMP were not engaged actively enough to benefit from the services being offered.

This included participants who were not fully engaged in behavior change and action planning, and in some cases, participants with needs that did not fit the intent of the program. Further, in cases where multiple contacts were made before a participant could be reached, the OHCA

evaluated whether services would still be required by the time the individual was actually contacted.

During fall and winter 2011, the OHCA and Telligen re-evaluated the goals of the program and determined the appropriate types of cases to engage and when to continue providing services. The OHCA applied predictive modeling and case-by-case review to identify members who would benefit from the services being provided.

These joint efforts contributed to a decrease in engagement totals during SFY 2012. The OHCA suspended the disenrollment process in January 2012 and requested that Telligen focus on maintaining engagement and increase enrollment with members meeting programmatic requirements.

Conclusion: The OHCA and Telligen have made changes to program eligibility to better serve participants engaged in the program and to facilitate enrollment of individuals who may benefit from the services being provided through the SoonerCare HMP. The effect of these changes will be monitored through other evaluation activities, including participant satisfaction surveys and quality-of-care measurements.

Assessment of Newly Enrolled SoonerCare HMP Members

Contractual Standard: Once Telligen contacts an eligible member, and the member agrees to participate, he or she is considered “enrolled” and is assigned to a nurse care manager. The nurse care manager is required to conduct a series of assessments and develop an individualized plan-of-care for the member. Members are then considered “engaged.”

The assessments must be conducted and care plan developed within ten business days of consent to participate in the program. The assessment and care planning process is face-to-face for Tier 1 participants and telephonic for Tier 2.

Evaluation Findings: PHPG selected 75 Tier 1 and 75 Tier 2 care management records from QualiTrac™, Telligen’s web-based health management information system. PHPG reviewed completion dates for the following:

- Initial health questionnaire;
- Baseline health assessment;
- Initial depression screen;
- Initial care plan development; and
- Education on identified health needs and self-management activities.

Telligen completed assessment and care planning activities for all 75 Tier 1 and 75 Tier 2 participants in accordance with contract standards (see exhibit 2-19).

Exhibit 2-19 – Initial Assessment and Care Planning Timeliness for SFY 2012

Measure	Standard	Tier 1 Results	Tier 2 Results
1. Completion of initial health questionnaire	100% of engaged	100% (75 of 75)	100% (75 of 75)
2. Timely completion of baseline health assessment	95% within 10 business days of first contact	100% (75 of 75)	100% (75 of 75)
3. Timely completion of depression screen ¹⁵	95% within 10 business days of first contact	97.3% (72 of 74)	98.7% (74 of 75)
4. Development of individualized care plan	95% within 10 business days of first contact	100% (75 of 75)	100% (75 of 75)
5. Education on health needs and self-management activities	95% within 10 business days of first contact	98.7% (74 of 75)	100% (75 of 75)

Telligen’s compliance in SFY 2012 was consistent with its performance in previous evaluation periods (see exhibit 2-20).

Exhibit 2-20 – Initial Assessment and Care Planning Timeliness for SFYs 2009 through 2012

Measure	Summary of Findings for SFYs 2009-2012							
	SFY 2009 Findings (April – June 2009)		SFY 2010 Findings (April – June 2010)		SFY 2011 Findings (April – June 2011)		SFY 2012 Findings (April – June 2012)	
	Tier 1	Tier 2						
1. Completion of initial health questionnaire	100%	100%	100%	100%	100%	100%	100%	100%
2. Timely completion of baseline health assessment	98.7%	100%	98.7%	100%	100%	100%	100%	100%

¹⁵ Generally nurse care managers do not perform a depression screen on members under age 14; rather, a behavioral health assessment containing psycho-social components is completed. All minor-aged participants in the sample had documentation of a depression screen and/or behavioral health assessment. The sample size is 74 for the Tier 1 population as one participant was residing in a mental health facility at the time of engagement and already receiving ongoing mental health assessments by providers in the facility.

Measure	Summary of Findings for SFYs 2009-2012							
	SFY 2009 Findings (April – June 2009)		SFY 2010 Findings (April – June 2010)		SFY 2011 Findings (April – June 2011)		SFY 2012 Findings (April – June 2012)	
	Tier 1	Tier 2						
3. Timely completion of depression screen	98.7%	100%	100%	100%	100%	100%	97.3%	98.7%
4. Development of individualized care plan	98.7%	100%	100%	100%	100%	100%	100%	100%
5. Education on health needs and self-management activities	98.7%	100%	96.0%	100%	100%	100%	98.7%	100%

In September 2011, Telligen initiated a pilot to evaluate the benefits associated with a patient-centered and motivational interviewing approach to engagement and follow-up contact with participants. Nurse care managers were encouraged to help participants establish a self-guided plan that would focus on what health changes they wanted to make and how to bring about those changes.

Conclusion: During the course of all four evaluation periods, Telligen has met contract standards for assessment and care plan development for both tier groups.

Ongoing Monthly Contact (Intervention)

Overview: Nurse care managers must attempt at least monthly face-to-face visits, or interventions, with all Tier 1 participants. However, a Tier 1 participant may receive a telephone contact if his/her schedule, mobility and/or geographic location make a face-to-face visit difficult. Successful interventions include new engagement assessment, monthly follow up and quarterly re-assessment.

Nurse care managers must attempt to make at least monthly telephone contact with all Tier 2 participants. As with Tier 1, successful interventions include new engagement assessment, monthly follow up and quarterly re-assessment.

Telligen’s contract was clarified in SFY 2009 to allow for “intervention equivalents” in lieu of successful telephone or face-to-face interventions. The “intervention equivalent” consists of three attempts (telephone or missed appointments) occurring on three different dates, spanning at least seven calendar days in that month, with one attempt occurring in the evening.

Telligen also may provide a “partial intervention equivalent” in circumstances where timing of the engagement or previous contact makes it such that a full intervention equivalent cannot be

accomplished within the calendar month. The partial intervention equivalent consists of at least two attempts to contact the participant.

The OHCA requires Telligen to have an intervention, intervention equivalent or partial intervention equivalent with 100 percent of engaged Tier 1 and Tier 2 participants each month. The OHCA further requires that at least 70 percent of the total be comprised of successful interventions.

Evaluation Findings: Telligen submits monthly reports to the OHCA documenting its visit outcomes by tier. Exhibits 2-21 and 2-22 below display the percentage of successful interventions and intervention equivalents reported by Telligen for April through June 2012. Although the percent of successful interventions has declined slightly from previous evaluation periods, the percent of individuals who were not contacted at all remains close to zero.

Exhibit 2-21– Telligen-Reported Visit Outcomes for Tier 1 Participants

Month	Percent Successful Intervention	Percent Intervention Equivalent	Percent No Contact	Other Contacts (non-billable, one contact, pending closure)
April 2012	72.48%	20.37%	0.12%	7.03%
May 2012	69.63%	21.93%	0.88%	7.57%
June 2012	65.20%	23.65%	1.35%	9.79%

Exhibit 2-22 – Telligen-Reported Visit Outcomes for Tier 2 Participants

Month	Percent Successful Intervention	Percent Intervention Equivalent	Percent No Contact	Other Contacts (non-billable, one contact, pending closure)
April 2012	71.1%	26.96%	0.00%	1.90%
May 2012	71.65%	26.13%	0.03%	2.19%
June 2012	66.38%	31.96%	0.06%	1.60%

PHPG selected a sample of care management records for participants during April, May and June 2012 and reviewed the records to document the intervention attempts and outcomes. Telligen achieved an average successful intervention rate of 75 percent among Tier 1 participants during the audit period (see exhibit 2-23). Phone interventions were conducted whenever a participant was unavailable for a face-to-face visit.

Exhibit 2-23– Tier 1 Monthly Intervention Audit Findings

Month	Cases in Audit Sample	Percent Face-to-face Interventions	Percent Phone Interventions	Percent Intervention Equivalents	Percent No Contact Attempts	Percent Successful Interventions
April 2012¹⁶	65	72.3%	12.3%	12.3%	0.0%	84.6%
May 2012	75	60.0%	13.3%	26.7%	0.0%	73.3%
June 2012¹⁷	75	58.7%	8.0%	25.3%	2.7%	66.7%
Three-Month Average		63.7%	11.2%	21.4%	0.9%	74.9%

Telligen achieved an average successful intervention rate of nearly 76 percent among Tier 2 participants during the audit period (see exhibit 2-24).

Exhibit 2-24 – Tier 2 Monthly Intervention Audit Findings

Month	Cases in Audit Sample	Percent Phone Interventions	Percent Intervention Equivalents	Percent No Contact Attempts	Percent Successful Interventions
April 2012	71	80.3%	19.7%	0.0%	80.3%
May 2012	75	80.0%	20.0%	0.0%	80.0%
June 2012¹⁸	75	66.7%	32.0%	0.0%	66.7%
Three-Month Average		75.7%	23.9%	0.0%	75.7%

¹⁶ One case record indicated pending closure status, and one case indicated that contacts were made only to the provider during April 2012.

¹⁷ Two case records indicated pending closure status, and two case records indicated that one contact attempt was made during June 2012.

¹⁸ One case record indicated pending closure status.

Telligen’s successful intervention rate declined from SFY 2011 to SFY 2012 and was below the rate documented in each of the prior three years (see exhibit 2-25).

Exhibit 2-25 – Percent of Successful Monthly Interventions for SFYs 2009 through 2012

Month	Summary of Findings for SFYs 2009-2012							
	SFY 2009 Findings		SFY 2010 Findings		SFY 2011 Findings		SFY 2012 Findings	
	Tier 1	Tier 2	Tier 1	Tier 2	Tier 1	Tier 2	Tier 1	Tier 2
April	98.2%	87.5%	82.5%	77.8%	79.7%	86.7%	84.6%	80.3%
May	92.5%	79.3%	77.3%	86.2%	81.1%	81.3%	73.3%	80.0%
June	96.6%	84.5%	78.8%	80.6%	74.7%	90.7%	66.7%	66.7%
Three-Month Average	95.8%	83.8%	79.8%	81.5%	78.5%	86.2%	74.87%	75.67%

Conclusion: During the SFY 2012 evaluation period, Telligen met the 70 percent successful intervention standard for both Tier 1 and Tier 2 participants during April 2012 and May 2012. For June 2012, the percent of successful interventions was slightly under 67 percent for both Tier 1 and Tier 2 participants (see exhibit 2-25).

Quarterly Contact with Primary Care Provider

Contractual Standard: Nurse care managers must provide written reports to each participant’s primary care provider, updating them on care plans and progress toward meeting care plan goals.

Evaluation Findings: Telligen automatically generates and mails letters to providers containing information on the participants’ current care plans. Nurse care managers also call primary care providers with updates as necessary.

For the SFY 2012 audit, PHPG reviewed the case records of 75 Tier 1 and 75 Tier 2 participants to verify a letter had been sent. As with the SFY 2010 and 2011 audits, all the records included documentation of quarterly primary care provider contacts in the form of a letter. Some records also included documentation of phone follow-ups with providers by Tier 1 and Tier 2 nurse care managers.

In addition, Telligen management also reported that individual nurse care managers are meeting with providers in person and scheduling monthly visits to coincide with participants’ provider appointments. This allows participants, nurse care managers and providers to more effectively communicate the care and health needs of the individual participant.

Conclusion: Telligen met the contract standard for quarterly primary care provider contacts.

Follow-up on Behavioral Health Referrals

Contractual Standard: Nurse care managers are required to perform ongoing assessments that include a screening for depression using the Patient Health Questionnaire (PHQ-9). Telligen must offer referrals to individuals who score in the moderate to higher range and must provide follow-up during subsequent care management contacts.

Telligen forwards the referral to the OHCA Behavioral Health Specialist, who contacts the participant directly and provides information on behavioral health resources. The large percentage of participants with physical and behavioral health co-morbidities underscores the importance of these referrals.

Evaluation Findings: PHPG obtained from the OHCA a list of participants who were referred by their nurse care managers for behavioral health resources. From this list, PHPG selected a sample of Tier 1 and Tier 2 participants who were referred during January through June 2012.

PHPG reviewed the participants' records for documentation of behavioral health follow-up activities by nurse care managers. Follow-up activities were defined to include provision of additional resources, education activities and documentation of the participant's decision to obtain behavioral health services.

The sample included 12 randomly selected Tier 1 and 12 Tier 2 participants, for a total of 24 (four referrals per month). Of the participants who remained eligible in the program following referral, all of the reviewed cases contained documentation of follow-up by nurse care managers.

As reported in the SFY 2010 evaluation, Telligen management reported a prevalence of behavioral health and substance abuse needs among SoonerCare HMP participants. Further, the need to address behavioral health issues more comprehensively in addition to chronic conditions has lengthened the amount of time participants may be enrolled in the SoonerCare HMP.

In SFY 2011, OHCA and Telligen management began reviewing the needs of participants requiring additional behavioral health resources to determine whether the SoonerCare HMP would be able to accommodate their needs. Telligen management reported that some participants reside in residential treatment facilities that offer services, including case management, targeted to address their behavioral health needs. Due to the resources available to these individuals through the residential treatment facilities, the OHCA and Telligen management elected to transition them out of the program. The process of reviewing case files of individuals receiving care through the behavioral health system for possible transition out of the SoonerCare HMP continued in SFY 2012.

Conclusion: Telligen met the contract standard for behavioral health follow-up activities during the SFY 2012 evaluation period. With the exception of one case record during the SFY 2011 audit period, Telligen has met this contract standard for all other evaluation years.

Graduation from Nurse Care Management

Contractual Standard: Under the program’s original design, the period of face-to-face care management was to last an average of six months, after which the participant would be transitioned to Tier 2 or graduated from the program. The OHCA elected not to begin the formal graduation process during the program’s first year, to allow time for refinement of the nurse care management process. The OHCA did approve a small number of persons for graduation in SFY 2009, acting on a case-by-case basis.

In October 2009, the OHCA and Telligen completed development of a formal graduation process. Under the graduation process guidelines, an OHCA Senior Research Analyst compiles a “potential discharge list” on a quarterly basis. This list includes Tier 1 participants who have achieved a MEDai Acute Risk Score of 80 or lower and a Chronic Risk Score of less than 90, and Tier 2 participants who achieved a MEDai Acute Risk Score of 60 or lower and a Chronic Risk Score of less than 90.

Nurse care managers also review these cases with consideration of the following:

- Whether the participant met (or is very near to meeting) care plan goals;
- Whether a specialist who is involved should be contacted to verify the participant’s readiness for discharge from the program, and if so, whether the specialist has been contacted and is in agreement; and
- Whether the participant exhibits the ability to manage his or her care independently.

The participant’s primary care provider also may be contacted to contribute to the discharge decision.

Taking all these factors into consideration, the nurse care manager determines whether the participant should graduate from the program due to having met his or her care plan goals; discharged from the program due to non-compliance or lack of progression/effort towards goals; graduated to another tier; or remain in the program with no change in status.

As discussed earlier in this evaluation, joint efforts by the OHCA and Telligen management staff, including implementation of the graduation process, review of participant MEDai files and identification of participants with access to behavioral health services, contributed to an increase in the number of individuals graduating from the program in SFY 2012.

Evaluation Findings: As of June 2012, 1,123 SoonerCare HMP participants (279 Tier 1 and 844 Tier 2) have graduated from the program, up from 395 participants one year earlier. These individuals either had achieved their goals or learned how to self-manage their care.

Telligen is required to mail a letter to a participant's providers advising them that the participant is set to graduate and offering an opportunity for the providers to respond. During the SFY 2012 evaluation process, the OHCA and Telligen reported that few providers followed up directly with nurse care managers regarding members' participation in the program. However, given that many program changes were made over the course of the year, the OHCA reported that it was possible that providers may not have been given the opportunity to contribute to the graduation decision.

PHPG reviewed 30 Tier 1 and 30 Tier 2 case records of individuals who graduated from the program during SFY 2012 to determine if the required notice had been provided. Only seven of the 30 Tier 1 records contained documentation (either by phone or letter) that the nurse care manager had notified the participant's primary care provider. By contrast, 29 of the 30 Tier 2 records included documentation of the required notice.

Nurse care managers generally notify participants of their upcoming graduation from, or completion of, the SoonerCare HMP. Ninety percent of the sampled Tier 1 case records contained documentation of discussions of upcoming graduation. Fifty percent of the sampled records contained a completion letter sent to the participant. Telligen reported that nurse care managers often hand participants a completion certificate at the last meeting rather than mailing out a letter.

Ninety-seven percent of the sampled Tier 2 case records contained documentation of discussions of upcoming graduation and documentation that a completion letter was sent to the participant.

Conclusion: The number of SoonerCare HMP graduates increased significantly in SFY 2012. Tier 2 primary care providers were nearly always notified of the event but Tier 1 primary care providers were not (or the nurse care manager failed to document the notification in the participant's file).

Participant Self-Management and Satisfaction Survey and Focus Groups

Introduction

The SoonerCare HMP evaluation contractor is required to assess the efficacy of the program in part through surveys of program participants, both members and practice facilitation providers. PHPG has surveyed SoonerCare HMP participants and health care providers on a rolling basis to measure their perceived quality of the program's process, its impact on the health and self-management of participants, and overall satisfaction.

PHPG began surveying newly-engaged participants in April 2009 and initiated six-month follow-up surveys of active participants in October 2009. Surveys of former participants and individuals who chose not to enroll ("opt outs") were started in August 2009. Surveys of formal nurse care management graduates began in December 2011.

Each spring PHPG issues a stand-alone survey report that includes updated findings for each surveyed population. Highlights of key findings from survey and focus group activities also are included in the annual report.

This section of the annual report builds upon previous reports by documenting member perceptions of the SoonerCare HMP through June 2012. The respondents included in earlier reports also are included within the larger survey samples presented in this section. Trends and disparities between earlier and more recent respondent groups are noted where applicable.

Member (Participant) Surveys

The member (or participant) perceptions and satisfaction survey component of the evaluation assesses the SoonerCare HMP's impact on quality of life and development of chronic disease self-management skills. Although these objectives are not as "quantifiable" as claims cost effectiveness tests, they are critically important when judging the program's impact and overall performance. Key survey findings as of June 2012 are presented for the following groups:

- Initial survey results for 2,938 SoonerCare HMP participants (931 Tier 1 and 2,007 Tier 2)
- Follow-up survey results for 1,010 participants
- Survey results for 415 former participants
- Survey results for 111 individuals who were identified by Telligen as having "graduated" or achieved successful completion of the program¹⁹

¹⁹ Prior to December 2011, survey results of graduated members were captured through the former participant survey.

- Survey results for 402 individuals who were contacted by Telligen but declined to enroll (“opt outs”)

Data for the initial survey population (“active participants”) is cross tabulated by tier group, age, gender and geography (urban/rural), with detailed results presented in Appendix C.

Survey Methodology and Structure

The OHCA provides to PHPG on a monthly basis the names and available contact information for active participants in the SoonerCare HMP, as well as former participants and opt outs, as reported to the OHCA by Telligen. PHPG sends introductory letters informing active participants that they have been selected to participate in an evaluation of the SoonerCare HMP and will be contacted by telephone to complete a survey asking their opinions of the SoonerCare HMP. (Former participants and opt outs are not sent an advance letter.)

PHPG waits a minimum of four business days for the letters to arrive before initiating telephone outreach calls. Surveyors make three telephone call attempts per member at different times of the day and different days of the week before closing a case.

New members who participate in the survey are then contacted again six months later for a follow up survey to gauge whether they are still participating in the program, their current health care access and their perceptions and satisfaction of the program. Survey participants include members still engaged in the SoonerCare HMP, as well as former participants who elected to disenroll from the program.

All four survey instruments are written at a sixth-grade reading level. The survey instrument for active participants consists of 42 questions designed to garner meaningful information on member perceptions and satisfaction. The areas explored include:

- Program awareness and enrollment status
- Usual source of care
- Decision to enroll in the SoonerCare HMP
- Experience with and satisfaction of nurse care manager
- Experience with and satisfaction of the SoonerCare HMP website
- Overall satisfaction with the SoonerCare HMP
- Health status and demographics

The follow-up survey covers the same areas as the initial survey. The follow-up survey also captures information on changes in the member’s health status; the number of nurse care managers to whom the member has been assigned; changes made in self-management of care; and whether the member believes he or she still requires the services of a nurse care manager.

The former participant and opt out surveys each have 21 questions, focusing on program awareness, patterns of care and reasons for disenrolling or choosing not to enroll in the SoonerCare HMP.

The graduate survey asks about overall satisfaction with the program; suggestions for improvement; current health care resources; and changes in health and self-management of care.

Survey Margin of Error and Confidence Levels

The member survey results are based on a sample of the total SoonerCare HMP population and therefore contain a margin of error. The margin of error (or confidence interval), is usually expressed as a “plus or minus” percentage range (e.g., “+/- 5 percent”). The margin of error for any survey is a factor of the absolute sample size, its relationship to the total population and the desired confidence level for survey results.

The confidence level for each of the surveys was set at 95 percent, the most commonly used standard. The confidence level represents the degree of certainty that a statistical prediction (i.e., survey result) is accurate. That is, it quantifies the probability that a confidence interval (margin of error) will include the true population value. The 95 percent confidence level means that, if repeated 100 times, the survey results will fall within the margin of error 95 out of 100 times. The other five times the results will be outside of the range.

Exhibit 2-26 presents the sample size and margin of error for each of the surveys. The margin of error is for the total survey population, based on the average distribution of responses to individual questions. The margin can vary by question to some degree, upward or downward, depending on the number of respondents and distribution of responses.

Exhibit 2-26 – Survey Sample Size and Margin of Error

Survey	Sample Size	Confidence Level	Margin of Error
Active Participants	2,938	95%	+/- 1.72%
Follow-up Participants	1,010	95%	+/- 2.38%
Graduates	111	95%	+/- 8.83%
Former Participants	415	95%	+/- 4.77%
Opt Outs	402	95%	+/- 4.77%

The margin of error for the former participants and opt out groups is relatively large, reflecting the moderate sample sizes for these populations. However, the results for most questions were sufficiently lopsided to demonstrate statistical significance despite the margin of error.

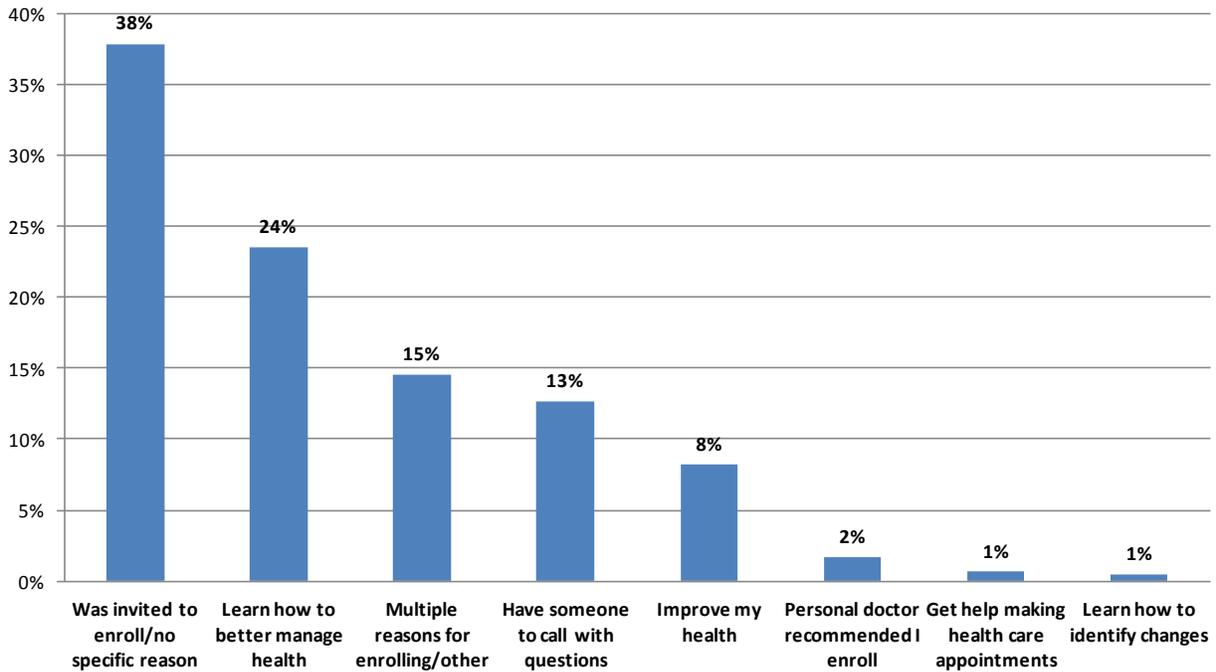
The sample for the graduate survey is still very small, and the associated margin of error is very large. Survey results are provided for information only and should not be used for policymaking purposes at this stage. As more surveys are completed, future reports should contain sufficient responses to allow interpretation and use of findings.

Active Participant Initial Survey Findings

Reason for Enrolling

The SoonerCare HMP seeks to teach participants how to better manage their chronic conditions. This was the primary reason cited by participants who had a goal in mind when enrolling. However, 38 percent of the respondents enrolled simply because they were asked (see exhibit 2-27). The SFY 2012 results are similar to those reported in SFY 2011.

Exhibit 2-27 – Primary Reason for Enrolling SoonerCare HMP



Nurse Care Manager Activities

Nurse care managers are expected to help participants build their self-management skills. Nearly all of the respondents indicated that their nurse care manager asked questions about and provided answers and instructions for taking care of their health problems or concerns (see exhibit 2-28). Fifty-six percent said their nurse care manager helped them to identify changes in their health that might be an early sign of a problem.

Exhibit 2-28 – Nurse Care Manager Activity Ratings

Activity	Respondents answering “yes” to activity					
	Yes	Very Satisfied	Somewhat Satisfied	Somewhat Dissatisfied	Very Dissatisfied	Do Not Remember/ N/A
1. Asked questions about your health problems or concerns	98.6%	89.4%	9.1%	0.9%	0.4%	0.1%
2. Provided instructions about taking care of your health problems or concerns	95.5%	90.2%	8.7%	0.7%	0.3%	0.1%
3. Helped you to identify changes in your health that might be an early sign of a problem	56.3%	92.2%	7.3%	0.3%	0.1%	0.1%
4. Answered questions about your health	94.6%	90.6%	8.6%	0.4%	0.3%	0.1%
5. Helped you to make and keep health care appointments for medical problems	48.5%	94.6%	5.0%	0.1%	0.1%	0.1%
6. Helped you to make and keep health care appointments for mental health or substance abuse problems	24.4%	94.5%	5.0%	0.1%	0.0%	0.3%

Note: Percentages may not total to 100% due to rounding.

Slightly less than 50 percent reported that their nurse care manager helped them make and keep health care appointments for medical problems. Twenty-four percent reported that the nurse care manager helped them make and keep health care appointments for mental health or substance abuse problems.

Respondents were asked to rate their satisfaction with each “yes” activity. The overwhelming majority reported being very satisfied with the help they received, with the portion ranging from 89 to 94 percent, depending on the item.

The percentage of individuals who report being very satisfied with the services they have received from their nurse care managers has increased over the duration of the program (see exhibit 2-29)²⁰.

**Exhibit 2-29 – Nurse Care Manager Activity Ratings
Comparison of SFY 2009 through 2012**

Activity	Percentage of Individuals Reporting “Very Satisfied”				Change from SFY 2009 to SFY 2012
	SFY 2009 Findings	SFY 2010 Findings	SFY 2011 Findings	SFY 2012 Findings	
1. Asked questions about your health problems or concerns	87.6%	87.9%	88.4%	89.4%	1.8%
2. Provided instructions about taking care of your health problems or concerns	86.9%	87.6%	88.9%	90.2%	3.3%
3. Helped you to identify changes in your health that might be an early sign of a problem	87.9%	90.2%	90.8%	92.2%	4.3%
4. Answered questions about your health	87.4%	88.3%	89.0%	90.6%	3.2%
5. Helped you to make and keep health care appointments for medical problems	91.3%	92.9%	93.1%	94.6%	3.3%
6. Helped you to make and keep health care appointments for mental health or substance abuse problems	91.2%	93.1%	93.5%	94.5%	3.3%

Note: Percentages may not total to 100% due to rounding.

²⁰ As noted earlier, the survey data shown in this section is cumulative, except where otherwise indicated. That is, each year includes results collected during that year and all prior years. Trends from 2009 to 2012 therefore may be slightly understated. In the March 2013 standalone Satisfaction and Self-Management Impact Report, PHPG will present longitudinal data with survey results isolated by year, where there is a sufficient sample size to allow for meaningful trending.

Satisfaction with Nurse Care Manager and SoonerCare HMP

Overall, slightly less than 88 percent of participants were very satisfied with the help they received from their nurse care manager, an increase from the previous years' reports (see exhibit 2-30).

**Exhibit 2-30 – Overall Satisfaction with Nurse Care Manager
Comparison of SFY 2009 through 2012**

Level of Satisfaction	Tier 1	Tier 2	Overall Satisfaction with Nurse Care Manager				
	SFY 2012 Findings	SFY 2012 Findings	SFY 2009 Findings	SFY 2010 Findings	SFY 2011 Findings	SFY 2012 Findings	Change from SFY 2009 to SFY 2012
Very Satisfied	86.4%	88.5%	84.6%	86.3%	86.8%	87.8%	3.2%
Somewhat Satisfied	9.3%	9.5%	13.0%	11.8%	10.7%	9.4%	-3.6%
Somewhat Dissatisfied	1.6%	0.6%	1.2%	1.0%	0.8%	0.9%	-0.3%
Very Dissatisfied	1.4%	0.5%	1.2%	0.9%	0.8%	0.8%	-0.4%
Too Soon to Tell/Unsure	1.3%	1.1%	0.0%	0.1%	0.8%	1.1%	1.1%

Note: Percentages may not total to 100% due to rounding.

For most participants, the nurse care manager is the SoonerCare HMP. Overall satisfaction with the program closely tracked to the nurse care manager ratings (see exhibit 2-31).

**Exhibit 2-31 – Overall Satisfaction with SoonerCare HMP
Comparison of SFYs 2009 through 2012**

Level of Satisfaction	Tier 1	Tier 2	Overall Satisfaction with SoonerCare HMP				
	SFY 2012 Findings	SFY 2012 Findings	SFY 2009 Findings	SFY 2010 Findings	SFY 2011 Findings	SFY 2012 Findings	Change from SFY 2009 to SFY 2012
Very Satisfied	85.7%	87.2%	82.6%	83.6%	84.9%	86.7%	4.1%
Somewhat Satisfied	10.1%	10.1%	14.2%	13.5%	11.9%	10.1%	-4.1%
Somewhat Dissatisfied	1.5%	0.9%	1.8%	1.6%	1.2%	1.1%	-0.7%
Very Dissatisfied	1.4%	0.5%	1.4%	0.9%	0.9%	0.8%	-0.6%
Too Soon to Tell/Unsure	1.3%	1.3%	0.0%	0.5%	1.0%	1.3%	1.3%

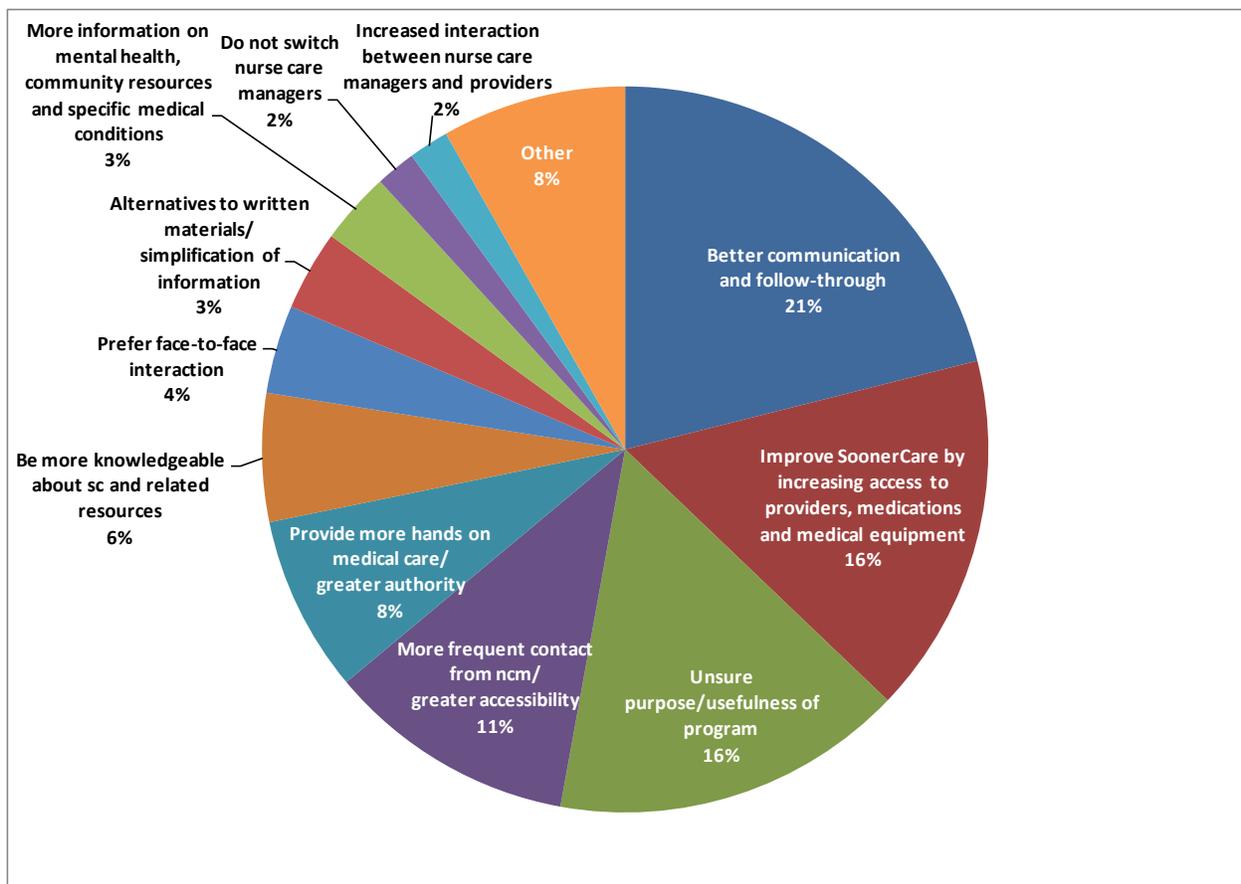
Note: Percentages may not total to 100% due to rounding.

Recommendations for Improvement

The overwhelming majority of surveyed participants (90 percent) was entirely satisfied and had no suggestions for how the SoonerCare HMP could be improved. Among those who did have suggestions, the largest portion (21 percent) requested better communication and contact (e.g., punctuality and contact at scheduled time) with their nurse care manager. The second largest segment (16 percent) requested improved access to providers, medications and medical equipment, which applies to the Medicaid program in general.

Other recommendations included more frequent contact from nurse care managers; providing more information on mental health and other resources; providing more hands-on medical care (not permitted under SoonerCare HMP rules); providing alternatives to written materials for members with literacy problems; and offering face-to-face visits instead of telephone contacts (as reported by Tier 2 members) (see exhibit 2-32).

Exhibit 2-32 – Participant Recommendations



Note: Among those offering a recommendation.

Change in Health Status

Improved self-management skills should translate over time into improved health status. The results to date, from a participant perspective, are not decisive. Through SFY 2012, approximately 65 percent of respondents had been enrolled in the SoonerCare HMP for at least three months, and most (64 percent of Tier 1 and 66 percent of Tier 2) reported their health to be about the same as before they enrolled in the SoonerCare HMP (see exhibit 2-33).

**Exhibit 2-33 – Perceived Changes in Health Status
Comparison of SFY 2009 through 2012**

Change in Health Status	Tier 1	Tier 2	Overall Perceived Changes in Health Status				
	SFY 2012 Findings	SFY 2012 Findings	SFY 2009 Findings	SFY 2010 Findings	SFY 2011 Findings	SFY 2012 Findings	Change from SFY 2009 to SFY 2012
Better	26.9%	26.6%	37.9%	35.1%	29.0%	26.6%	-11.3%
Worse	8.4%	7.2%	14.2%	10.2%	8.5%	7.6%	-6.6%
About the Same	64.0%	65.9%	47.7%	54.4%	62.0%	65.3%	17.6%
Not in Program Long Enough/Unsure/N/A	0.7%	0.4%	0.2%	0.4%	0.6%	0.4%	0.2%

Note: Percentages may not total to 100% due to rounding.

Through SFY 2012, approximately 27 percent of all initial survey respondents reported improved health. Nearly all of the respondents (91 percent for Tier 1 and 93 percent for Tier 2) who reported an improvement said that the SoonerCare HMP contributed to their change in status. The reasons given include following diet and exercise recommendations suggested by the nurse care manager and making and keeping more appointments with health care providers.

It should be noted that PHPG’s analysis of quality care measures and participant utilization and expenditure trends has found evidence that the SoonerCare HMP is having a positive impact on participant health. Most of the improvement occurs after the first year of enrollment, making it less likely that participants in the initial or six-month follow-up surveys would be reporting a change in status. As discussed later in this evaluation, a higher prevalence of individuals reported an improvement in health during the follow-up survey. Compared to previous years’ evaluations, fewer individuals are reporting a decline in health status during the SFY 2012 evaluation period.

Six-month Follow-up Survey Findings

PHPG attempts to contact all participants six months after their initial survey to administer a follow-up questionnaire. Between April 2009 and December 2011 2,483 participants underwent an initial survey. Out of this group, 1,010 (approximately 41 percent) agreed to participate in the six-month follow up survey (320 Tier 1 and 690 Tier 2). (Follow-up surveys were conducted from October 2009 through June 2012.)

Nearly 92 percent of the surveyed individuals (906 of 1,010) reported still being enrolled in the SoonerCare HMP. Nine participants stated that they had graduated from the SoonerCare HMP. Results are presented separately for Tier 1 and Tier 2 respondents.

Nurse Care Manager Changes

A large majority of follow-up respondents (75 percent across both tiers) reported having the same nurse care manager since enrolling in the program. Among those individuals who have had two or more nurse care managers, only four reported that the most recent change was made at their request. Among the rest, 30 percent were told that their nurse had either relocated or resigned. Thirty-seven percent of Tier 1 participants and 50 percent of Tier 2 participants reported that they were not given a reason.

Only 46 percent of participants across both tiers reported that their departing and arriving nurses met together with them to facilitate to transition process. This percentage, while low, has improved somewhat over time. In SFY 2010, 42 percent of Tier 1 and 32 percent of Tier 2 respondents stated that a meeting had occurred.

Despite the lack of a formal transition in most cases, 75 percent of Tier 1 participants and 67 percent of Tier 2 participants reported being very satisfied with the way the change in nurse care managers was handled (see exhibit 2-34). The responses have remained relatively consistent throughout the evaluation periods. Those dissatisfied with the change said that they preferred their previous nurse care manager and/or were never notified of the change.

**Exhibit 2-34 – Follow-up Survey: Satisfaction with Way Change Handled
Comparison of SFY 2010 through 2012**

Level of Satisfaction	Tier 1	Tier 2	Overall Satisfaction with Way Change Handled			
	SFY 2012 Findings	SFY 2012 Findings	SFY 2010 Findings	SFY 2011 Findings	SFY 2012 Findings	Change from SFY 2010 to SFY 2012
Very Satisfied	74.4%	66.9%	71.2%	67.7%	69.5%	-1.7%
Somewhat Satisfied	23.1%	24.8%	23.2%	25.9%	24.4%	1.2%
Somewhat Dissatisfied	1.3%	2.8%	2.4%	2.6%	2.2%	-0.2%
Very Dissatisfied	1.3%	4.8%	3.2%	3.7%	3.6%	0.4%
N/A	0.0%	0.7%	0.0%	0.0%	0.4%	0.4%

Note: Percentages may not total to 100% due to rounding.

Nurse Care Manager Activities

Nurse care managers are expected to help participants develop their self-management skills and take a more proactive role in maintaining or improving their health. Consistent with their responses in the initial survey and with SFY 2010 and 2011 report findings, nearly all respondents reported that their nurse care manager asked questions about their health problems or concerns (99 percent) and provided instructions about taking care of their health problems or concerns (98 percent).

Approximately 97 percent of respondents said their nurse care manager also answered questions about their health. Nearly 64 percent reported that their nurse care manager helped them to identify changes in their health that might be an early sign of a problem (see exhibit 2-35).

Exhibit 2-35 – Follow-up Survey: Nurse Care Manager Activity Ratings

Activity	Respondents answering “yes” to activity					
	Yes	Very Satisfied	Somewhat Satisfied	Somewhat Dissatisfied	Very Dissatisfied	Do Not Remember/ Unsure
1. Asked questions about your health problems or concerns	98.8%	92.2%	6.8%	0.4%	0.4%	0.1%
2. Provided instructions about taking care of your health problems or concerns	97.7%	92.6%	6.8%	0.2%	0.3%	0.1%
3. Helped you to identify changes in your health that might be an early sign of a problem	63.7%	95.3%	4.5%	0.2%	0.0%	0.0%
4. Answered questions about your health	96.6%	93.2%	6.5%	0.2%	0.1%	0.0%
5. Helped you to make and keep health care appointments for medical problems	54.7%	95.6%	4.0%	0.2%	0.2%	0.0%
6. Helped you to make and keep health care appointments for mental health or substance abuse problems	25.3%	94.3%	5.2%	0.0%	0.4%	0.0%

Note: Percentages may not total to 100% due to rounding.

Fifty-five percent of follow-up respondents reported that their nurse care manager helped them make and keep health care appointments for medical problems. Twenty-five percent reported that their nurse care manager helped them make and keep health care appointments for mental health or substance abuse problems. Both of these percentages were higher than reported in the initial survey. Respondents also were asked to rate their satisfaction with each “yes” activity. The overwhelming majority again reported being very satisfied with the help they received.

The percentage of individuals who report being very satisfied with the services they have received from their nurse care managers has remained relatively consistent among follow-up survey respondents (see exhibit 2-36). The percentage of very satisfied also has been consistently higher in the follow-up survey than in the initial survey (see exhibit 2-29 for initial survey data).

**Exhibit 2-36 – Follow-up Survey: Nurse Care Manager Activity Ratings
Comparison of SFY 2010 through 2012**

Activity	Percentage of Individuals Reporting "Very Satisfied"			
	SFY 2010 Findings	SFY 2011 Findings	SFY 2012 Findings	Change from SFY 2010 to SFY 2012
1. Asked questions about your health problems or concerns	92.2%	92.3%	92.2%	0.0%
2. Provided instructions about taking care of your health problems or concerns	93.3%	92.8%	92.6%	-0.7%
3. Helped you to identify changes in your health that might be an early sign of a problem	95.8%	95.6%	95.3%	-0.5%
4. Answered questions about your health	93.6%	93.1%	93.2%	-0.4%
5. Helped you to make and keep health care appointments for medical problems	95.6%	95.4%	95.6%	0.0%
6. Helped you to make and keep health care appointments for mental health or substance abuse problems	94.9%	93.3%	94.3%	-0.6%

Note: Percentages may not total to 100% due to rounding.

Satisfaction with Nurse Care Manager and SoonerCare HMP

Approximately ninety percent of participants through SFY 2012 reported being very satisfied with the help they received from their nurse care manager. Nearly all of the rest stated they were somewhat satisfied (see exhibit 2-37).

Exhibit 2-37 – Follow-up Survey: Overall Satisfaction with Nurse Care Manager Comparison of SFYs 2010 through 2012

Level of Satisfaction	Tier 1	Tier 2	Overall Satisfaction with Nurse Care Manager			
	SFY 2012 Findings	SFY 2012 Findings	SFY 2010 Findings	SFY 2011 Findings	SFY 2012 Findings	Change from SFY 2010 to SFY 2012
Very Satisfied	89.7%	89.9%	91.6%	91.0%	89.8%	-1.8%
Somewhat Satisfied	7.4%	8.0%	5.5%	7.2%	7.8%	2.3%
Somewhat Dissatisfied	0.7%	0.6%	0.6%	0.3%	0.7%	0.1%
Very Dissatisfied	1.8%	0.5%	1.6%	1.1%	0.9%	-0.7%
Too Soon to Tell/Unsure	0.4%	1.0%	0.6%	0.5%	0.8%	0.2%

Note: Percentages may not total to 100% due to rounding.

Overall satisfaction with the program was almost identical to the nurse care manager ratings, with nearly 88 percent of Tier 1 and 89 percent of Tier 2 follow-up respondents describing themselves as very satisfied (see exhibit 2-38).

Exhibit 2-38 – Follow-up Survey: Overall Satisfaction with SoonerCare HMP Comparison of SFYs 2010 through 2012

Level of Satisfaction	Tier 1	Tier 2	Overall Satisfaction with SoonerCare HMP			
	SFY 2012 Findings	SFY 2012 Findings	SFY 2010 Findings	SFY 2011 Findings	SFY 2012 Findings	Change from SFY 2010 to SFY 2012
Very Satisfied	87.9%	88.6%	88.6%	89.4%	88.4%	-0.2%
Somewhat Satisfied	8.9%	9.3%	7.8%	8.4%	9.2%	1.4%
Somewhat Dissatisfied	0.7%	0.5%	1.0%	0.5%	0.6%	-0.4%
Very Dissatisfied	2.1%	0.5%	1.9%	1.2%	1.0%	-0.9%
Too Soon to Tell/Unsure	0.4%	1.1%	0.6%	0.5%	0.9%	0.3%

Note: Percentages may not total to 100% due to rounding.

The percentage of respondents who reported being very satisfied with their nurse care manager(s) and the SoonerCare HMP increased from the initial to follow-up surveys (see exhibits 2-30 and 2-31). This suggests that longer exposure to the program heightens participant awareness of the value of the program and the services being provided.

Similar to the initial survey responses, those few who reported being dissatisfied in the follow-up survey found their nurse pleasant to talk to, but questioned the usefulness of the program. These participants also attributed their dissatisfaction to issues with providers and medication access, which are more applicable to the Medicaid program in general.

Eighty-nine percent of follow-up respondents did not have any suggestions for how the SoonerCare HMP program could be improved. Among those who did, their suggestions mirrored those provided during the initial survey.

Health Status

Follow-up survey respondents had been in the program for at least six-months,²¹ with 25 percent of those surveyed having been in the program for over nine months. Improved self-management skills should translate over time to improved health status.

The results to date from a participant perspective remain less than decisive (see exhibit 2-39). As in the initial survey, the largest segment (55 percent of Tier 1 and 59 percent of Tier 2) reported their health to be about the same as before they enrolled in the SoonerCare HMP. Nearly 32 percent of Tier 1 and 30 percent of Tier 2 follow-up participants reported their health to be better. Among those who reported an improvement, 93 percent said that the SoonerCare HMP contributed to their change in status.

***Exhibit 2-39 – Follow-up Survey: Perceived Changes in Health Status
Comparison of SFYs 2010 through 2012***

Change in Health Status	Tier 1	Tier 2	Overall Perceived Changes in Health Status			
	SFY 2012 Findings	SFY 2012 Findings	SFY 2010 Findings	SFY 2011 Findings	SFY 2012 Findings	Change from SFY 2010 to SFY 2012
Better	31.6%	30.4%	35.8%	31.1%	30.8%	-5.0%
Worse	13.0%	9.9%	15.0%	12.6%	10.8%	-4.2%
About the Same	55.1%	59.2%	48.6%	55.8%	58.0%	9.4%
Not in Program Long Enough/ Unsure/N/A	0.3%	0.4%	0.6%	0.4%	0.4%	-0.2%

Note: Percentages may not total to 100% due to rounding.

²¹ Twelve members reported being in the program for less than six months; however, review of Telligen records indicated that the members had been in the program for more than six months.

Self-Management Skills – Lifestyle Changes

Beginning in the fall of 2011, survey respondents who attributed improvement in health to the SoonerCare HMP were asked to provide examples of how their nurse care managers helped them to make lifestyle changes. Respondents were asked whether their nurse care managers discussed behavior changes with respect to smoking, exercise, diet, medication management, water intake and alcohol/substance consumption. If so, respondents were asked about the impact of the nurse care manager’s intervention on their behavior (no change, temporary change or continuing change). Survey data was collected from 39 respondents in time for this report (see exhibit 2-40).

Exhibit 2-40 – Follow-up Survey: Changes in Behavior

Activity	Discussion and Change in Behavior			
	N/A – Not Discussed	Discussed – No Change	Discussed – Temporary Change	Discussed – Continuing Change
1. Smoking less or using other tobacco products less	43.6%	30.8%	5.1%	20.5%
2. Moving around more or getting more exercise	2.6%	17.9%	7.7%	71.8%
3. Changing your diet	2.6%	7.7%	2.6%	87.2%
4. Managing and taking your medications better	17.9%	28.2%	0.0%	53.8%
5. Making sure to drink enough water through the day	12.8%	15.4%	2.6%	69.2%
6. Drinking or using other substances less	41.0%	43.6%	0.0%	15.4%

Note: Percentages may not total to 100% due to rounding. The “Discussed – No Change” group includes persons for whom no behavior change was needed (e.g., non-smokers).

A majority of respondents reported discussing each of the activities with their nurse care manager and a majority reported that they are continuing to work on making recommended lifestyle changes. However, the results should be interpreted with caution, given the small sample size. Future reports will contain larger samples and more reliable data.

Self-Management Skills – Independence

During the SFY 2012 evaluation period, 32 percent of Tier 1 and 38 percent of Tier 2 follow-up respondents reported that they have learned how to manage their own care and could continue without their nurse care manager (see exhibit 2-41). However, 67 percent of Tier 1 and 62 percent of Tier 2 participants stated that they still need their nurse care manager to help manage their care. (Tier 1 participants generally have greater health care needs and may need more time to develop effective self-management skills.)²²

Overall, the percentage of participants who said they are ready to self-manage their care has increased slightly, rising from 36 percent to 39 percent during the course of this multi-year evaluation.

**Exhibit 2-41 – Follow-up Survey: Perceived Ability to Self Manage
Comparison of SFYs 2010 through 2012**

Perceived Ability to Self Manage	Tier 1	Tier 2	Overall Perceived Ability to Self Manage			
	SFY 2012 Findings	SFY 2012 Findings	SFY 2010 Findings	SFY 2011 Findings	SFY 2012 Findings	Change from SFY 2010 to SFY 2012
I have learned how to manage my care and could continue to do so even if I didn't have my nurse care manager	34.4%	41.3%	36.0%	36.1%	39.2%	3.2%
I still need my nurse care manager to help me manage my care	64.5%	58.3%	63.3%	63.5%	60.3%	-3.0%
Either way/N/A	1.1%	0.3%	0.6%	0.5%	0.6%	0.0%

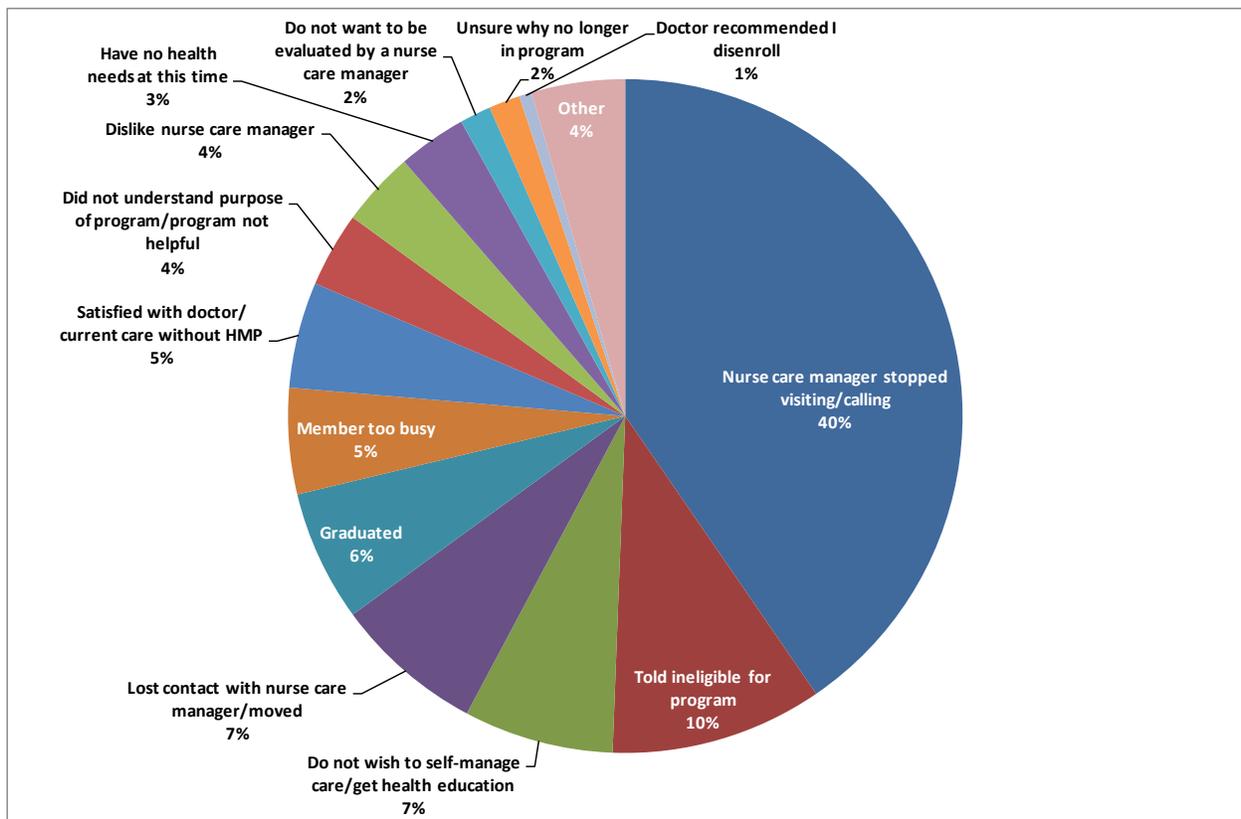
Note: Percentages may not total to 100% due to rounding.

²² Anecdotally, some respondents have confided to interviewers that they are reluctant to report improved health status or ability to self-manage their disease out of fear that they will be disenrolled from nurse care management. These disclosures are not tracked and cannot be quantified but likely account for some of the discrepancy between survey responses and other data points.

SoonerCare HMP Former Participants

PHPG surveyed a sample of former SoonerCare participants who were reported by Telligen to have dropped out of the program. When asked why they disenrolled, 40 percent said it was not their decision. Instead, they reported that their nurse care manager had stopped calling or visiting (see exhibit 2-42). This is a four percent decrease from the findings reported for the SFY 2011 evaluation.

Exhibit 2-42 – Reason for Decision to Disenroll²³



Among the remaining respondents, few gave a reason that clearly suggested a true intent to disenroll. Six percent of respondents believed they had graduated from the program. Seven percent reported losing contact with their nurse care manager due to relocation or hospitalization. Ten percent reported losing SoonerCare and/or eligibility from the HMP due to enrollment in other programs (e.g., SoonerCare *AD*vantage or Medicare).

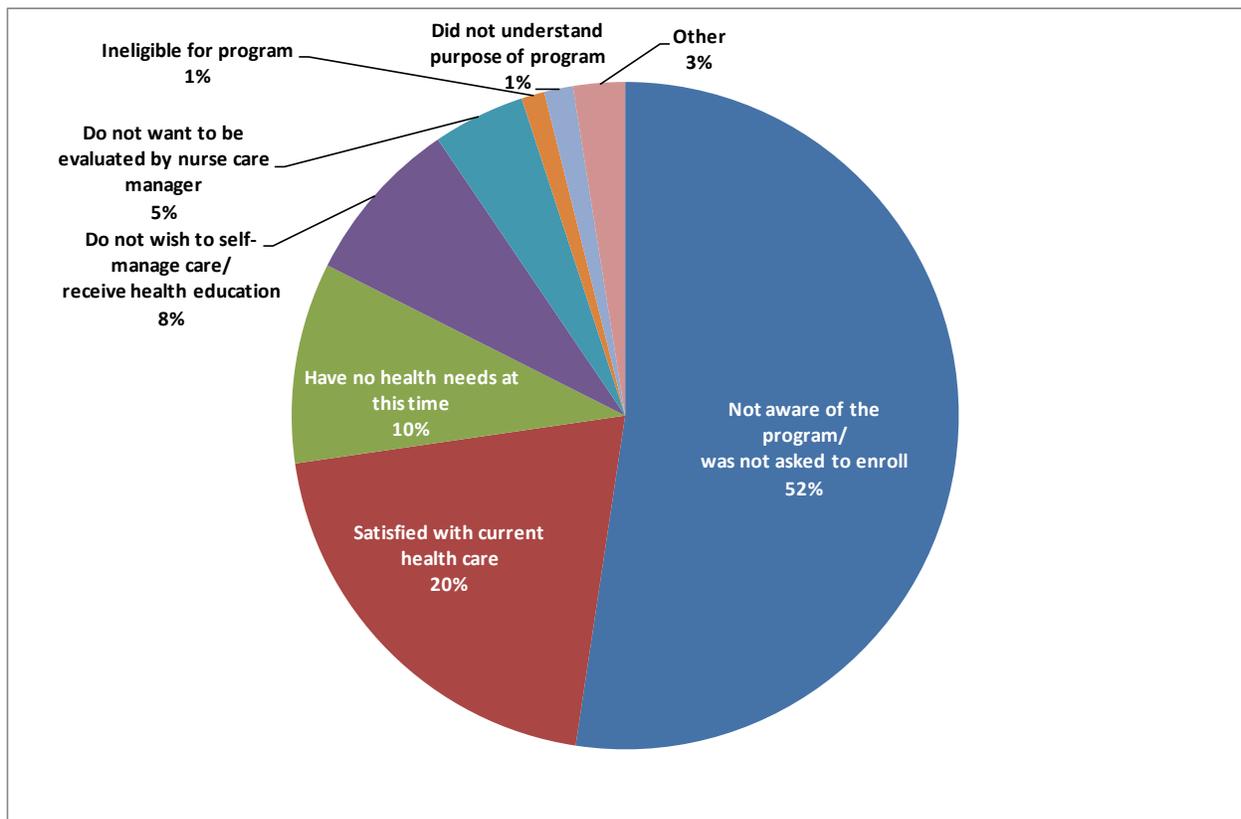
When asked if they would like to be contacted about re-enrolling, 41 percent of the respondents said yes. Telligen reports that it has made periodic re-contact attempts with former participants to inquire about their interest in re-engaging and that members have contacted Telligen to re-enroll in the program.

²³ Respondents permitted to give multiple reasons.

SoonerCare HMP Opt Outs

PHPG also surveyed a sample of SoonerCare members who had been contacted by Telligen but declined to enroll in the SoonerCare HMP. When asked about their decision, the largest segment (52 percent) was unaware of the program and/or did not recall being asked to enroll. Twenty percent said they were satisfied with their current health care and ten percent had no health needs that required assistance from a nurse care manager. Others stated they did not understand the purpose of the program or did not want to be evaluated by a nurse care manager (see exhibit 2-43).

Exhibit 2-43 – Reason for Decision not to Enroll²⁴



In contrast to the former participant group, over 77 percent of respondents indicated that they did not want someone to contact them about enrolling in the SoonerCare HMP. However, 20 percent were willing to speak to someone again.

²⁴ Respondents permitted to give multiple reasons.

SoonerCare HMP Graduate Survey Findings

Under the program's original design, the period of face-to-face care management was to last an average of six months, after which the participant would be transitioned to Tier 2 or, if already in Tier 2, graduated from the program. The OHCA elected not to begin the formal graduation process during the program's first year, to allow time for refinement of the nurse care management process. The OHCA did approve a small number of persons for graduation in SFY 2009, acting on a case-by-case basis.

In October 2009, the OHCA and Telligen completed development of a formal graduation process. Under the graduation guidelines, an OHCA Senior Research Analyst compiles a "potential discharge list" for review by OHCA HMP and Telligen managers. This list includes Tier 1 participants who have achieved a MEDai Acute Risk Score of 80 or less and a Chronic Risk Score below 90, and Tier 2 participants who achieved a MEDai Acute Risk Score of 60 or less and a Chronic Risk Score below 90.

Nurse care managers then review these cases with respect to the following:

- Whether the member met (or is very near to meeting) care plan goals;
- Whether a specialist who is involved should be contacted to verify the member's readiness for discharge from the program, and if so, whether the specialist has been contacted and is in agreement; and
- Whether the member exhibits the ability to manage their care independently.

The nurse care manager may contact a member's primary care provider for his or her input as part of the decision making process.

Taking all the factors into consideration, the nurse care manager determines whether the member should graduate from the program due to having met his or her care plan goals; be discharged from the program due to non-compliance or lack of progression/effort towards goals; graduate to another tier (i.e., from Tier 1 to Tier 2); or remain in the program with no change in status.

In April 2011, the OHCA assigned a nurse from its staff to assist in evaluating members being considered for graduation. The OHCA reported a subsequent increase in the graduation rate. By the end of SFY 2012, 1,123 individuals had graduated from the program.

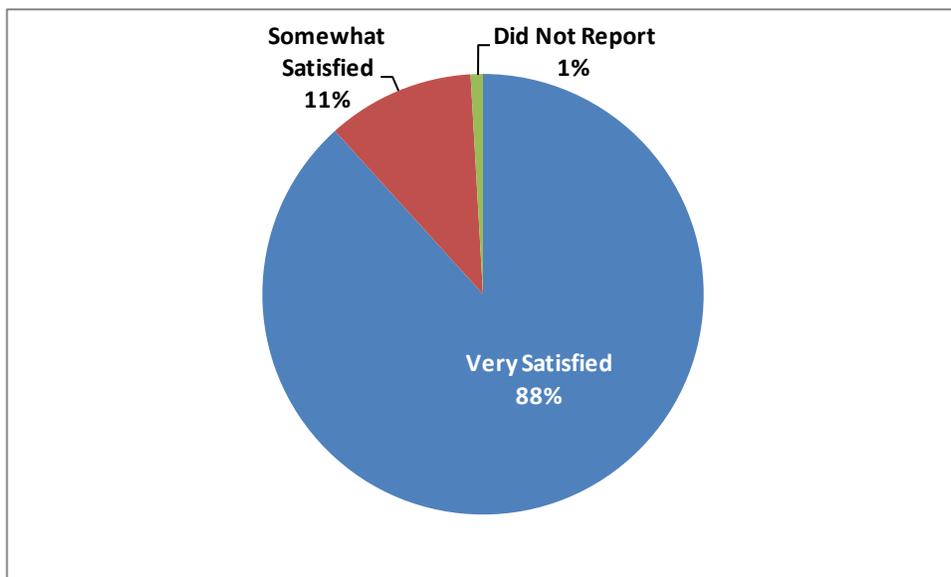
In December 2011, PHPG began to conduct targeted surveys of individuals whom Telligen identified as having graduated or otherwise successfully completed the program. The survey explores overall satisfaction with experience in the program and changes to health status. Survey data was collected from 111 respondents through June 2012. Caution should be used in interpreting results from such a small sample. The 2013 report will have a significantly larger respondent universe and more reliable results.

Satisfaction with Experience in the SoonerCare HMP

Eighty-eight percent of the graduates reported being very satisfied with their overall experience with the program (see exhibit 2-44). The remaining 11 percent reported being somewhat satisfied, and one individual did not comment.

All responding graduates indicated that they would recommend the program to a friend with similar health care needs.²⁵ Only one respondent had a suggestion for improving the program.²⁶

Exhibit 2-44 – Graduate Survey: Overall Satisfaction with the SoonerCare HMP



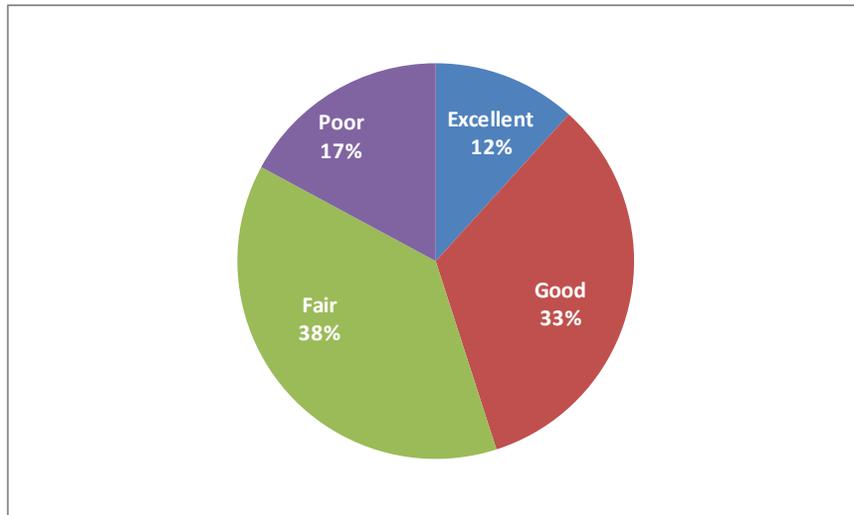
²⁵ Two individuals did not respond to the question.

²⁶ The individual recommended that the nurses keep in contact with members at least once per month.

Current Health Status

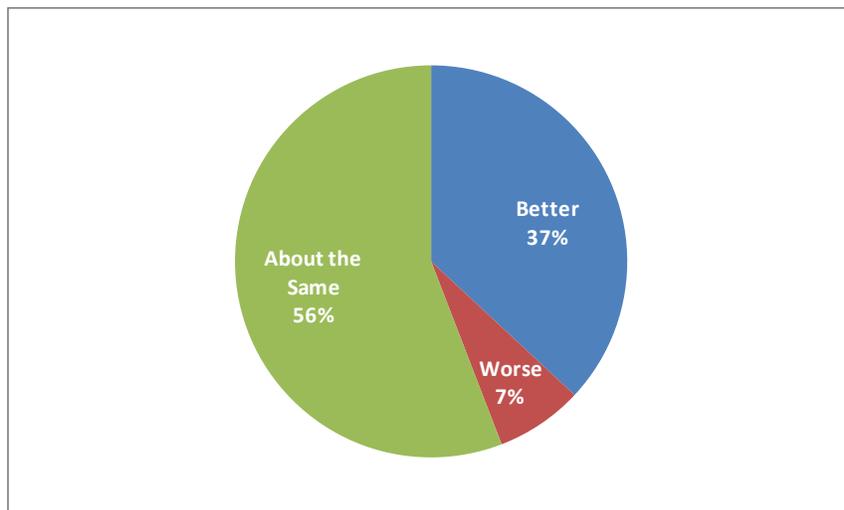
Forty-five percent of graduates reported their health status as “excellent” or “good” (see exhibit 2-45). This was a significant improvement from the initial survey group, in which 31 percent of respondents reported “excellent” or “good” health.

Exhibit 2-45 – Graduate Survey: Current Health Status (Self-Reported)



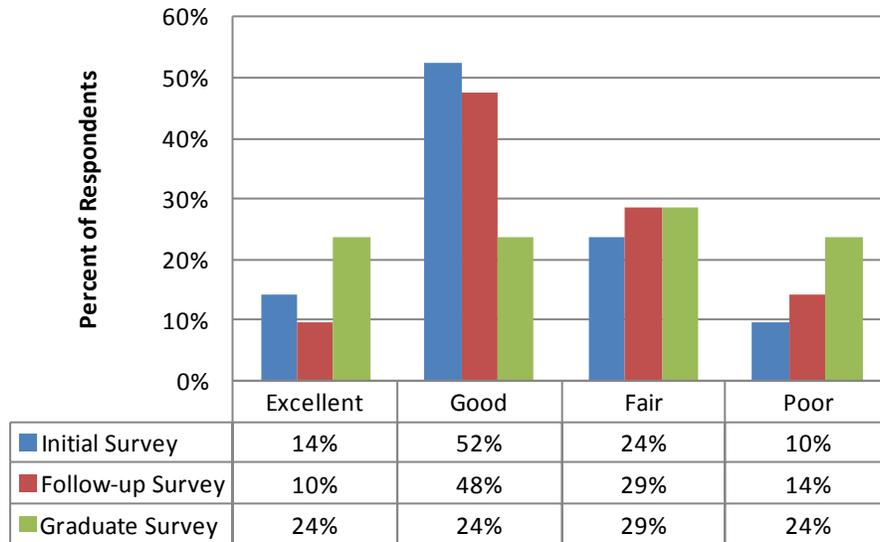
As in the initial survey, the largest segment (56 percent) reported their health to be about the same as before they enrolled in the SoonerCare HMP (see exhibit 2-46). However, the percentage of graduates reporting their health to be better increased from nearly 27 percent in the broad initial survey population to 37 percent in the graduate group, with nearly all attributing the improvement to their participation in nurse care management.

Exhibit 2-46 – Graduate Survey: Perceived Changes in Health Status



Of the 111 graduate survey participants, 21 individuals also completed an initial survey and six-month follow-up survey. Slightly more than half of the surveyed individuals (11 out of 21) reported the same health status during the graduate survey as when initially surveyed (see exhibit 2-47). Three individuals reported a more positive current health status during the graduate survey – from “good” to “excellent” and “fair” to “good.”

Exhibit 2-47 – Graduate Survey: Comparison of Current Health Status (Self-Reported)



During the initial and graduate surveys, the largest segment reported their health to be about the same as before enrolling in the SoonerCare HMP (see exhibit 2-48). However, among those who provided a response during the follow-up survey, 48 percent indicated an improvement in status. Most who reported an improvement attribute this to the SoonerCare HMP.

Exhibit 2-48 – Graduate Survey: Perceived Changes in Health Status

Change in Health Status	Perceived Changes in Health Status		
	Initial Survey	Follow-up Survey	Graduate Survey
Better	38.1%	47.6%	23.8%
Worse	4.8%	0.0%	4.8%
About the Same	52.4%	47.6%	71.4%
Unsure/N/A	4.8%	4.8%	0.0%
Improvement Due to HMP	62.5%	90.0%	100.0%

Self-Management Skills - Lifestyle

As with the six-month follow-up group, graduates were asked whether they made changes with respect to the following behaviors: smoking less, getting more exercise, changing diet, managing medications better, drinking enough water throughout the day and drinking/using other substances less. Among those who had discussions with their nurse care managers, the most common changes made included drinking enough water (56 percent) and managing and taking medications better (53 percent) (see exhibit 2-49 below).

Exhibit 2-49 – Graduate Survey: Changes in Behavior

Activity	Discussion and Change in Behavior					
	N/A – Not Discussed	Discussed – No Change	Discussed – Temporary Change	Discussed – Continuing Change	Discussed – N/A	Unsure
1. Smoking less or using other tobacco products less ²⁷	32.4%	34.2%	10.8%	18.9%	1.8%	1.8%
2. Moving around more or getting more exercise	12.6%	27.0%	12.6%	45.9%	0.0%	1.8%
3. Changing your diet	11.7%	26.1%	11.7%	47.7%	0.0%	2.7%
4. Managing and taking your medications better	9.9%	37.8%	0.9%	48.6%	0.0%	2.7%
5. Making sure to drink enough water throughout the day	14.4%	20.7%	3.6%	59.5%	0.0%	1.8%
6. Drinking or using other substances less ²⁸	38.7%	44.1%	0.9%	11.7%	1.8%	2.7%

Note: Percentages may not total to 100% due to rounding.

Starting with the 2013 report, when there is sufficient graduate data, PHPG will analyze and report changes in the self-management skills for persons completing all three participant surveys (initial, six-month follow-up and graduate). By isolating these individuals, PHPG will be able to gain a more precise measurement of the impact of nurse care management on participants over time.

²⁷ Parents and guardians reported that the nurse did not discuss tobacco use with their children given their age.

²⁸ Parents and guardians reported that the nurse did not discuss alcohol and/or substance use with their children given their age.

Summary of Key Findings

Responses from the additional survey participants remained relatively consistent with the findings presented in prior annual evaluations. Participants generally are very satisfied with the nurse care management program and the SoonerCare HMP overall. Most participants have a positive relationship with their nurse care manager and report receiving assistance with developing their self-management skills and arranging medical and (when applicable) behavioral health appointments.

The majority of survey respondents did not report a positive change in their health status, either at the time of the initial survey, at the six-month follow-up or after graduation. However, nearly all of those who did see an improvement credit their change at least in part to the program's services.

Many of the former participants said they valued the program and would like to re-enroll. A significant minority of the population that initially "opted out" when contacted also would like another chance to enroll.

Member Focus Group Findings

In addition to conducting surveys, PHPG holds focus groups with current and former nurse care management participants every year. The most recent focus groups took place in March 2012 in Oklahoma City and Tulsa.

Although focus groups cannot be treated as statistically representative, they provide an opportunity to explore participant attitudes in greater depth than is possible during a standardized survey. Focus groups also enable participants to interact with one another and compare their experiences in the program.

PHPG used the participant focus groups to gain additional insight in three areas:

1. *Nurse Care Management Services* – capture what the nurse care manager has done for the participant or participant’s family member and the typical monthly interaction between the participant and his or her nurse care manager;
2. *Current Health Care Utilization* – understand where participants typically get their health care and whether utilization has changed since enrolling in the SoonerCare HMP; and
3. *Suggestions for Program Improvement* – obtain suggestions from participants about changes to the SoonerCare HMP they would like to see.

Focus Group Methodology

PHPG recruited, by letter and follow-up phone call, Tier 1 and Tier 2 participants residing in the greater Oklahoma City and Tulsa areas who had participated in the initial SoonerCare HMP member satisfaction and perception survey. Invitations were sent both to active and former participants. Individuals who had participated in the focus groups held in 2011 also were invited to re-attend. Persons who agreed to participate were sent reminder letters confirming the date and location of the session.

In March 2012, PHPG held focus groups in Oklahoma City and Tulsa. PHPG’s moderator began by explaining the purpose of the focus group and the procedure that would be followed. Participants were asked to introduce themselves and describe their expectations for the SoonerCare HMP. The moderator then asked participants about their experiences with the program (see Appendix A). Audio recordings were made with the knowledge of the participants for later transcription.

A total of 21 active participants took part in the focus groups, six from Tier 1 and 15 from tier 2. (No former participants attended.) The groups included 10 men and 11 women. The age of

participants ranged from six to 62.²⁹ Among the attendees, three had participated in last year's discussions as well.

Summary of Key Findings

Most participants said that they have developed a relationship with their nurse care manager that enables them to openly discuss their health needs:

"She seems like...like she shares my pain. When I tell her about stuff...you know what I mean...some people you can tell them about stuff and it's like – 'OK...and?'"

"She'll talk to me and listen to my questions more than my doctor will."

"It's very pleasant. She's always positive. She sounds as if I'm important to her. That the call to me was, that she's the only person she's talked to all day. It's that personability."

Participants reported making lifestyle and self-management changes since participating in the SoonerCare HMP. Participants described engaging in healthier behaviors, such as taking measures to lose weight and lower blood sugar levels, and taking a more proactive role in their health care discussions with providers:

"We talk about goals and what are your health care goals for the month, and last month we talked about this, this and this, and how are you doing on those. It's accountability that I don't have any place in my life that pushes me, you know. I know she's going to call so I need to stay on track on my diet on exercising and those kinds of things. And she sends me information sheets and mails them to me. And so I have those resources at hand so I can read over and glean that information so that on my next trip to the doctor I can ask how this pertains to me and how it can help so that's useful."

"Mine sends me charts. I have to take my blood pressure and write down my pulse every morning, which is easy to get away from. My friend brought me a cuff and said: 'You have to do this.' And I said: 'Well, OK.' I'm from the 70s and I don't keep track of anything. For me it's good because I have the charts. I have to write it down. And she tells me. I weigh myself every day, and I do my blood pressure. I write it down, and I have to tell her. We go over it very quickly. You know it's easy to go over a 30-day chart and see if my blood pressure spiked at all. I'm grateful that something's working. It's so nice not to worry..."

²⁹ The minor was accompanied by his parent.

“Having a nurse calling me every month to monitor, to help me monitor. See I had quit weighing myself, and I quit taking my blood pressure, and I know you’re supposed to do all those things. You do it and then you don’t do it. She made me realize how important it is for my weight. I need to monitor that every 24 hours. If I do gain four or five pounds in 24 hours that means something’s going wrong with my heart. And a couple of days can make the difference between living or dying.”

Regardless of present experiences, the majority of participants reported that they still need a nurse care manager to provide ongoing assistance with the management of their chronic condition. Of these participants, most indicated there would be a time when they could manage their own care:

“Well, the nurses are encouraging because – I’ll just put it this way – there’s so much going on so my mind can get away from certain things so I try to stay out of the jungles – know what I’m saying? So with the nurse I feel more alert about certain things. She’ll call: ‘Are you following up on your diet? Are you doing this Are you doing that?’ They’re always checking up on me.”

“I really have enjoyed talking to a nurse every month. I look forward to her calling. I look forward to what she’s got to say. I know a lot of it is repetitive, but somebody’s helping me monitor my health, and I don’t know if it’s psychological, but it makes me feel better to know what’s going on with me. Like I said, I’m on 13 medications. She made me understand what each of them was for. Better than any doctor did.”

“The problems I’ve had, the medical situations, are recoverable. And though her encouragement and emotional support has been a good thing, a mainstay, yeah, there’s a point and time when I can graduate on beyond and do it on my own. But it’s coming because of her facilitating those changes.”

Although all participants reported that their nurse care managers were very knowledgeable about health and wellness matters, several reported that their nurses could not assist them with SoonerCare-related matters such as finding a new provider or accessing prescriptions. The most frequent recommendation was that the nurse care managers receive more training on the SoonerCare program’s benefits and resources to assist members in navigating the program:

“If the nurses were familiar with the SoonerCare system so that what benefits are available and how many prescriptions are available and what the advance prescriptions are, you know. More knowledge [of] SoonerCare, specifically to help you navigate the system.”

“If they could help us work through the SoonerCare system on how to get your meds straightened out. Because when I ask her about specific SoonerCare policy and how come they won’t pay...the nurse being familiar with that would be of much benefit.”

“They [SoonerCare] don’t give them enough information. The nurses don’t have enough information...You can call them for an answer to a question. For example, everyone in this room knows they send you this little deal: ‘You can get two name brand medications per month,’ but everyone knows you don’t get it unless they don’t have a generic...they’re [the nurses] a little behind in the information and stuff. They don’t keep her up to date. SoonerCare needs to get them up to date.”

Other suggestions included more accessibility to nurses and having an “Ask a Nurse” program available:

“More of a liaison or advocate and more accessible in times of emergency. I mean I have her name, I have her phone number, I have her extension number, but the times that I’ve called, and: ‘this and this and this is going on, what do I need to do.’ Well, she wasn’t in that day or was out sick or something and by the time this message got to her and this one and this one and this one and then her, she called me, and it was a week later. I’d already seen my regular doctor. And that was probably the single most frustrating part, when I actually wanted something more instant in a response. Or like this is going on, do I need to go see the doctor or do I need to adjust medication. That would probably be the biggest thing I’d suggest.”

“I believe this nurse program would be better for me, for my personally, if it would be an “ask a nurse” program. If I have the flu or I need to ask about something, I can call and ask specific questions...”

Summary of Focus Group Findings

The great majority of focus group participants had positive experiences with their nurse care managers and credited the program with having a positive impact on their lifestyle and health care utilization. Most of the participants referred to their nurse care managers as caring and appreciated the help they received. These participants felt as though they have established a “relationship” with their nurse care manager. All participants wanted the services to continue.

Quality of Care Analysis

The quality of care analysis targeted SoonerCare HMP participants continuously engaged during SFY 2012 having no more than 45 days without coverage. SoonerCare HMP participants had to have a minimum of six months of enrollment in the HMP program. The enrollment was not strictly limited to the measurement period of July 1, 2011 to June 20, 2012, rather; it included members who may have begun their enrollment before the measurement period and whose enrollment continued into all or part of the measurement period.

The evaluation included 21 diagnosis-specific clinical measures (identified later in the chapter) and three population-wide measures:

- Percent of participants receiving influenza vaccination in the previous twelve months
- Percent of participants reducing their acuity scores as identified through MEDai profiles
- Percent of participants reducing their measure gaps as identified through MEDai profiles

Participants were included in each diagnostic category for which they had a primary diagnosis listed on one or more paid claims in SFY 2012. APS used administrative (paid claims) data to develop findings for 21 diagnosis-specific clinical measures.

APS determined the total number of participants with a primary diagnosis in each measurement category, the number meeting the clinical standard and the resultant “percent compliant”. APS also calculated the SFY 2012 compliance rates for a “comparison group” consisting of SoonerCare Choice members found eligible for, but not enrolled in the SoonerCare HMP.

The diagnosis-specific findings begin on the next page, followed by the three population-wide measures. For each measure, the first comparison displayed is the SoonerCare HMP (engaged group) to the SoonerCare Choice members (comparison group), followed by the year-over-year compliance percentage comparison for engaged SoonerCare HMP participants. Statistically significant differences between the engaged and comparison group populations, at a 99 percent confidence level, are highlighted in bold face.

Asthma

The quality of care for participants with asthma was evaluated through one clinical measure:

- Percent with persistent asthma who had at least one dispensed prescription for inhaled corticosteroids, nedocromil, cromolun sodium, leukotriene modifiers or methylxanthines.

Seventy percent of participants with a primary diagnosis of asthma were found to have at least one dispensed prescription (see exhibit 2-50). The rate for the comparison group³⁰ was higher than for the engaged population (statistically significant difference).

Exhibit 2-50 – Asthma Clinical Measures Engaged vs. Comparison Group

Measure	Analysis Method	Engaged Population			Engaged versus Comparison Group	
		Total Members	Members Compliant	Percent Compliant	Comparison Group Compliance Rate	Engaged - Comparison: % Point Difference
1. Percent with persistent asthma who had at least one dispensed prescription for inhaled corticosteroids, nedocromil, cromolun sodium, leukotriene modifiers or methylxanthines	Administrative data	233	163	70.0%	81.6%	(11.6%)

³⁰ In the interest of space, the population size for the comparison group is not presented in the tables. However, in most instances it was three to five times the size of the engaged population.

The compliance rate for SoonerCare HMP participants with a primary diagnosis of asthma who had at least one dispensed prescription (see exhibit 2-51) remained at 70 percent in both SFY 2011 and SFY 2012.

Exhibit 2-51 – Asthma Clinical Measures 2011 - 2012

Measure	Analysis Method	June 2011 Findings	June 2012 Findings	2011-2012 Comparison
		Percent Compliant	Percent Compliant	% Point Change
1. Percent with persistent asthma who had at least one dispensed prescription for inhaled corticosteroids, nedocromil, cromolun sodium, leukotriene modifiers or methylxanthines	Administrative data	70.3%	70.0%	(0.3%)

COPD

The quality of care for participants with COPD was evaluated through three clinical measures:

- Percent over age 40 who received spirometry screening
- Percent prescribed steroid inhaler
- Percent who received chest x-ray in previous twelve months

The strongest results were found for the chest x-ray measure; 63 percent of participants with COPD received a chest x-ray in the previous twelve months versus nearly 60 percent of the comparison group.

Approximately 53 percent of participants had a steroid prescribed, slightly higher than for the comparison group.

Only 20 percent of participants over age 40 received a spirometry screening but this was in line with the comparison group (see exhibit 2-52).

Exhibit 2-52 – COPD Clinical Measures Engaged vs. Comparison Group

Measure	Analysis Method	Engaged Population			Engaged versus Comparison Group	
		Total Members	Members Compliant	Percent Compliant	Comparison Group Compliance Rate	Engaged - Comparison: % Point Difference
1. Percent over age 40 who received spirometry screening	Administrative data	451	94	20.8%	21.5%	(0.7%)
2. Percent prescribed steroid inhaler	Administrative data	461	242	52.5%	46.3%	6.2%
3. Percent who received chest x-ray in previous twelve months	Administrative data	461	294	63.8%	59.9%	3.9%

The compliance rate for participants who received a chest x-ray was nearly 64 percent in SFY 2012, with only a slight decline from 66 percent in SFY 2011. Over 50 percent of participants had a steroid prescribed in SFY 2012, demonstrating a 14.7 percentage point increase from SFY 2011. Only 20 percent of participants over age 40 received a spirometry screening in SFY 2012 but this was in line with SFY 2011 (see exhibit 2-53).

Exhibit 2-53 – COPD Clinical Measures 2011 – 2012

Measure	Analysis Method	June 2011 Findings	June 2012 Findings	2011-2012 Comparison
		Percent Compliant	Percent Compliant	% Point Change
1. Percent over age 40 who received spirometry screening	Administrative data	19.3%	20.8%	1.5%
2. Percent prescribed steroid inhaler	Administrative data	37.8%	52.5%	14.7%
3. Percent who received chest x-ray in previous twelve months	Administrative data	66.2%	63.8%	(2.4%)

Heart Failure

The quality of care for participants with heart failure was evaluated through two clinical measures:

- Percent prescribed a beta blocker
- Percent who received chest x-ray in previous twelve months

Approximately 48 percent of participants were prescribed a beta blocker, which was also above the rate for the comparison group (statistically significant difference).

Over 62 percent received a chest x-ray in the previous twelve months compared to only 38 percent for the comparison group (statistically significant difference). (See exhibit 2-54.)

Exhibit 2-54 – Heart Failure Clinical Measures Engaged vs. Comparison Group

Measure	Analysis Method	Engaged Population			Engaged versus Comparison Group	
		Total Members	Members Compliant	Percent Compliant	Comparison Group Compliance Rate	Engaged - Comparison: % Point Difference
1. Percent prescribed a beta blocker	Administrative data	474	228	48.1%	27.6%	20.5%
2. Percent who received chest x-ray in previous twelve months	Administrative data	474	296	62.4%	38.0%	24.4%

In SFY 2012, forty-eight percent of participants were prescribed a beta blocker, a 17.4 percentage point increase from SFY 2011. Sixty-two percent of participants received a chest x-ray, which was a slight increase from 60 percent in SFY 2011 (see exhibit 2-55).

Exhibit 2-55 – Heart Failure Clinical Measures 2011 - 2012

Measure	Analysis Method	June 2011 Findings	June 2012 Findings	2011-2012 Comparison
		Percent Compliant	Percent Compliant	% Point Change
1. Percent prescribed a beta blocker	Administrative data	30.7%	48.1%	17.4%
2. Percent who received chest x-ray in previous twelve months	Administrative data	60.0%	62.4%	2.4%

Coronary Artery Disease

The quality of care for participants with Coronary Artery Disease was evaluated through five clinical measures:

- Percent with prior myocardial infarction (MI) prescribed beta-blocker therapy
- Percent with prior MI prescribed ACE inhibitor/ARB therapy
- Percent who received at least one LDL cholesterol screen
- Percent prescribed lipid-lowering therapy
- Percent who received left ventricular (LV) function test after acute myocardial infarction

The compliance rate among participants was over 50 percent for four of the five measures, including over 70 percent for prescription of beta-blocker therapy. The one lagging measure was LV function test, performed on only six percent of the participants.

For all measures, the compliance rates among participants exceeded the comparison group rates (see exhibit 2-56). The differences were statistically significant for four of the five measures.

Exhibit 2-56 – Coronary Artery Disease Clinical Measures Engaged vs. Comparison Group

Measure	Analysis Method	Engaged Population			Engaged versus Comparison Group	
		Total Members	Members Compliant	Percent Compliant	Comparison Group Compliance Rate	Engaged - Comparison: % Point Difference
1. Percent with prior MI prescribed beta-blocker therapy	Administrative data	150	108	72.0%	58.5%	13.5%
2. Percent with prior MI prescribed ACE/ARB therapy	Administrative data	150	102	68.0%	55.6%	12.4%
3. Percent who received at least one LDL-C screen	Administrative data	513	348	67.8%	47.7%	20.1%
4. Percent prescribed lipid-lowering therapy	Administrative data	513	305	59.5%	35.8%	23.7%
5. Percent who received LV function test after AMI	Administrative data	150	9	6.0%	5.7%	0.3%

Compliance for three of the five measures increased in SFY 2012 when compared to SFY 2011 (see exhibit 2-57). Over 70 percent of participants were prescribed beta-blocker therapy in both years. Only six percent of participants received an LV function test in 2012, a decline from 22 percent in 2011.

Exhibit 2-57 – Coronary Artery Disease Clinical Measures 2011 - 2012

Measure	Analysis Method	June 2011 Findings	June 2012 Findings	2011-2012 Comparison
		Percent Compliant	Percent Compliant	% Point Change
1. Percent with prior MI prescribed beta-blocker therapy	Administrative data	73.6%	72.0%	(1.6%)
2. Percent with prior MI prescribed ACE/ARB therapy	Administrative data	62.9%	68.0%	5.1%
3. Percent who received at least one LDL-C screen	Administrative data	65.0%	67.8%	2.8%
4. Percent prescribed lipid-lowering therapy	Administrative data	52.8%	59.5%	6.7%
5. Percent who received LV function test after AMI	Administrative data	22.1%	6.0%	(16.1%)

Diabetes

Diabetes is one of the most prevalent of the chronic conditions targeted through the SoonerCare HMP. The quality of care for participants with diabetes was evaluated through five clinical measures:

- Percent prescribed ACE/ARB therapy
- Percent who received LDL-C in previous twelve months
- Percent who received at least one dilated retinal eye exam in previous twelve months
- Percent who received urine micro albumin screen in previous twelve months
- Percent who received at least one HbA1c test in previous twelve months

Results for this group showed strong performance on three measures: 73 percent received at least one HbA1c test; over 65 percent received an LDL-C; and over 64 percent were prescribed ACE/ARB therapy. The HMP participant population compliance rate exceeded the comparison group compliance rate for two of five measures, with slightly lower results for the other three measures. Only 33 percent of participants received at least one dilated retinal eye exam screening and 28 percent received a urine micro albumin screen, but both results were in line with the comparison group (see exhibit 2-58).

Exhibit 2-58 – Diabetes Mellitus Clinical Measures Engaged vs. Comparison Group

Measure	Analysis Method	Engaged Population			Engaged versus Comparison Group	
		Total Members	Members Compliant	Percent Compliant	Comparison Group Compliance Rate	Engaged - Comparison: % Point Difference
1. Percent prescribed ACE/ARB therapy	Administrative data	1,040	671	64.5%	61.2%	3.3%
2. Percent who received LDL-C in previous twelve months	Administrative data	1,040	683	65.7%	67.4%	(1.7%)
3. Percent who received at least one dilated retinal eye exam in previous twelve months	Administrative data	1,040	350	33.7%	30.5%	3.2%
4. Percent who received urine micro albumin screen in previous twelve months	Administrative data	1,040	290	27.9%	30.2%	(2.3%)
5. Percent who received at least one HbA1C test in previous twelve months	Administrative data	1,040	761	73.2%	76.1%	(2.9%)

The results for diabetes measures remained nearly unchanged from 2011 to 2012. The most notable shift was a slight decrease in the relatively high percentage who received at least one HbA1c test (see exhibit 2-59).

Exhibit 2-59 – Diabetes Mellitus Clinical Measures 2011 - 2012

Measure	Analysis Method	June 2011 Findings	June 2012 Findings	2011-2012 Comparison
		Percent Compliant	Percent Compliant	% Point Change
1. Percent prescribed ACE/ARB therapy	Administrative data	64.3%	64.5%	0.2%
2. Percent who received LDL-C in previous twelve months	Administrative data	65.7%	65.7%	0.0%
3. Percent who received at least one dilated retinal eye exam in previous twelve months	Administrative data	34.6%	33.7%	(0.9%)
4. Percent who received urine micro albumin screen in previous twelve months	Administrative data	28.4%	27.9%	(0.5%)
6. Percent who received at least one HbA1C test in previous twelve months	Administrative data	75.9%	73.2%	(2.7%)

Hypertension

Hypertension is another prevalent condition in the SoonerCare HMP population. The quality of care for participants with hypertension was evaluated through five clinical measures:

- Percent who received LDL-C in previous twelve months
- Percent prescribed calcium channel blocker or thiazide diuretic
- Percent over age 55 prescribed ACE/ARB therapy
- Percent who received urine micro albumin screen in previous twelve months
- Percent who received serum creatinine BUN lab test

Results for this group (see exhibit 2-60) showed strong performance on three measures: nearly 90 percent received a serum creatinine BUN lab test (statistically significant difference); over 71 percent were prescribed ACE/ARB therapy; and over 68 percent received an LDL-C (statistically significant difference). The number of participants prescribed a calcium channel blocker, fell short of the comparison group (statistically significant difference). While only 16 percent receive a urine micro albumin screen, this exceeded the comparison group rate (statistically significant difference).

Exhibit 2-60 – Hypertension Clinical Measures Engaged vs. Comparison Group

Measure	Analysis Method	Engaged Population			Engaged versus Comparison Group	
		Total Members	Members Compliant	Percent Compliant	Comparison Group Compliance Rate	Engaged - Comparison: % Point Difference
1. Percent who received LDL-C in previous twelve months	Administrative data	618	424	68.6%	62.6%	6.0%
2. Percent prescribed calcium channel blocker or thiazide diuretic	Administrative data	618	333	53.9%	59.6%	(5.7%)
3. Percent over age 55 prescribed ACE/ARB therapy	Administrative data	318	228	71.7%	71.8%	(0.1%)
4. Percent who received urine micro albumin screen in previous twelve months	Administrative data	618	98	15.9%	11.9%	4.0%
5. Percent who received serum creatinine BUN lab test	Administrative data	618	555	89.8%	83.1%	6.7%

Compliance for four of the five measures increased in SFY 2012 when compared to SFY 2011 (see exhibit 2-61). The greatest increase was observed for the percent prescribed a calcium channel blocker or thiazide diuretic. The percent of participants who were prescribed ACE/ARB declined slightly.

Exhibit 2-61 – Hypertension Clinical Measures 2011 - 2012

Measure	Analysis Method	June 2011 Findings	June 2012 Findings	2011-2012 Comparison
		Percent Compliant	Percent Compliant	% Point Change
1. Percent who received LDL-C in previous twelve months	Administrative data	65.7%	68.6%	2.9%
2. Percent prescribed calcium channel blocker or thiazide diuretic	Administrative data	45.8%	53.9%	8.1%
3. Percent over age 55 prescribed ACE/ARB therapy	Administrative data	72.9%	71.7%	(1.2%)
4. Percent who received urine micro albumin screen in previous twelve months	Administrative data	13.6%	15.9%	2.3%
5. Percent who received serum creatinine BUN lab test	Administrative data	88.9%	89.8%	0.9%

Prevention Measure

The SoonerCare HMP emphasizes prevention as part of a holistic care model. The quality of preventive care for participants was evaluated through one clinical measure:

- Percent receiving influenza vaccination in the previous twelve months

The influenza measure is important, given the compromised immune systems of many persons with chronic illnesses. Twenty percent of participants received the vaccination in SFY 2012 (see exhibit 2-62). The participant compliance rate was higher than the rate for the comparison group (statistically significant difference), although additional provider and participant education to address the importance of getting the vaccine is necessary.

Exhibit 2-62 – Prevention Measure (Influenza Vaccination) Engaged vs. Comparison Group

Measure	Analysis Method	Engaged Population			Engaged versus Comparison Group	
		Total Members	Members Compliant	Percent Compliant	Comparison Group Compliance Rate	Engaged - Comparison: % Point Difference
1. Percent receiving influenza vaccination in the previous twelve months	Administrative data	3,186	666	20.9%	18.8%	2.1%

There was an improvement over the SFY 2010 rate of 16.3 percent to 20.9 percent in 2012.

Exhibit 2-63 – Prevention Measure (Influenza Vaccination) 2011 - 2012

Measure	Analysis Method	June 2011 Findings	June 2012 Findings	2011-2012 Comparison
		Percent Compliant	Percent Compliant	% Point Change
1. Percent receiving influenza vaccination in the previous twelve months	Administrative data	16.3%	20.9%	4.6%

MEDai Profiles

Potential SoonerCare HMP participants are identified partly through a MEDai analysis of paid claims data. MEDai generates individual profiles that include an acuity score based on the predicted risk of future acute care expenditures and a gap score based on variance from impactable care guidelines.

APS obtained the pre-enrollment scores for SoonerCare HMP participants, by tier, and compared them to updated scores generated after at least six months of continuous participation in the program. Over 54 percent of participants in Tier 1 had lower acuity scores after six months and 47 percent of participants in Tier 2 had lower acuity scores after six months. Thirty-five percent of participants in Tier 1 and 29 percent in Tier 2 had lower gap scores (see exhibit 2-64).

Exhibit 2-64 – MEDai Profiles Engaged vs. Comparison Group

Measure	Analysis Method	Engaged Period		
		Total Members	Members w/ Lower Scores	Percent w/ Lower Scores
1a. TIER 1: Percent reducing their acuity scores as identified through MEDai profiles	Administrative data	608	330	54.3%
1b. TIER 2: Percent reducing their acuity scores as identified through MEDai profiles	Administrative data	2,578	1,212	47.0%
2a. TIER 1: Percent reducing their measure gaps as identified through MEDai scores	Administrative data	608	213	35.0%
2b. TIER 2: Percent reducing their measure gaps as identified through MEDai scores	Administrative data	2,578	755	29.3%

The percentage of participants in Tier 1 with lower acuity scores grew by nine percent from SFY 2011 to SFY 2012 while Tier 2 results remained constant. The percentage of Tier 1 participants with lower gap scores remained nearly unchanged from SFY 2011 to SFY 2012. There was a modest drop in the percentage of Tier 2 participants with lower gap scores (see exhibit 2-65).

Exhibit 2-65 – MEDai Profiles 2011 – 2012

Measure	Analysis Method	June 2011 Findings	June 2012 Findings	2011-2012 Comparison
		Percent Compliant	Percent Compliant	% Point Change
1a. TIER 1: Percent reducing their acuity scores as identified through MEDai profiles	Administrative data	45.4%	54.3%	8.9%
1b. TIER 2: Percent reducing their acuity scores as identified through MEDai profiles	Administrative data	47.0%	47.0%	0.0%
2a. TIER 1: Percent reducing their measure gaps as identified through MEDai scores	Administrative data	36.3%	35.0%	(1.3%)
2b. TIER 2: Percent reducing their measure gaps as identified through MEDai scores	Administrative data	35.9%	29.3%	(6.6%)

Summary of Key Findings

The results of the quality of care analysis were derived from a full year of participant data for SFY 2012. The results were evaluated against SFY 2012 compliance rates for a comparison group consisting of persons eligible for, but not enrolled in the SoonerCare HMP. SFY 2012 participant results also were evaluated against the same data for SFY 2011.

Engaged vs. Comparison Group

The participant compliance rate exceeded the comparison group rate on 14 of the 21 diagnosis-specific measures (nearly 67 percent). The difference was statistically significant for nine of the 14, suggesting that the program is continuing to have a positive effect on quality of care. The most impressive results, relative to the comparison group, were observed for participants with congestive heart failure, coronary artery disease and hypertension.

The program also appears to be having a positive impact on participant acuity and care gap scores. Continued efforts in the area of provider and participant education are necessary to increase the percentage of participants who receive the flu vaccine.

SFY 2011 – SFY 2012 Comparison

The participant compliance rate improved on 12 of the 21 diagnosis-specific measures (57 percent). The most impressive results, relative to SFY 2011, were observed for participants with chronic obstructive pulmonary disease, congestive heart failure, coronary artery disease and hypertension. The program also appears to be having a positive impact on participant acuity but continued focus needs to be made to lower gap scores.

Utilization and Expenditure Trend Analysis

Overview

Nurse care management, if effective, should have an observable impact on patient service utilization and expenditures. Improvement in the quality of care performance measures presented in the previous section should yield better outcomes in the form of lower hospitalization rates and acute care costs.

The utilization and expenditure analysis was conducted separately for Tier 1 and Tier 2 participants. Participant data was stratified by claim cost, age, location (urban/rural), primary diagnosis and comorbidities (both physical and behavioral). Utilization and expenditure data for the “eligible but not engaged” population, while not presented here, also was evaluated for the purpose of validating MEDai forecast data, as well as developing trend factors for growth in forecasted costs absent nurse care management.

Results are presented for participants’ actual claims experience compared to MEDai forecasts for the 36-month period following the start date of engagement. Data includes both active participants and persons who have graduated or otherwise disenrolled from the program. (Months 13 to 24 and 25 to 36 in particular include a significant amount of post-engagement data.)

MEDai’s advanced predictive modeling, as opposed to extrapolating historical trends, accounts for participants’ risk factors and recent clinical experience. The resulting forecasts serve as an accurate depiction of what participant utilization would have been like in the absence of nurse care management.

Participants in each diagnostic category were included in the analysis only if it was their most expensive at the time of engagement. A member’s most expensive diagnostic category at the time of engagement was defined as the diagnostic category associated with the greatest medical expenditures during the pre-engaged (1-12 months) and engaged periods. As participants in nurse care management have significant rates of physical co-morbidities, categorizing participants in this manner allows for a targeted analysis of both the absolute and relative impact of nurse care management on the various Chronic Impact conditions driving participant utilization.

Information is presented for the 16 diagnostic categories used by MEDai in calculation of the Chronic Impact score for potential nurse care management participants: asthma, coronary artery disease, cerebrovascular accident/stroke, chronic obstructive pulmonary disease (COPD), congestive heart failure, depression, diabetes mellitus, HIV, hyperlipidemia/high cholesterol, hypertension, lower back pain, migraine headaches, multiple sclerosis, renal failure/ESRD, rheumatoid arthritis, and schizophrenia.

The following data is provided for each diagnostic category:

1. Inpatient admissions
2. Emergency department visits
3. PMPM medical expenditures (total and by category of service; expenditures by category of service are presented comparing expenditures prior to and during engagement, as MEDai does not forecast expenditures by individual categories of service)
4. Total medical expenditure impact of nurse care management

Utilization and expenditures by category of service only are presented for the first 12 months following engagement. The six most frequently observed chronic conditions are presented first (asthma, coronary artery disease, congestive heart failure, COPD, diabetes, and hypertension) followed by the additional Chronic Impact conditions.

Methodology for Creation of Utilization/Expenditure Dataset

PHPG developed utilization/expenditure rates using claims with dates of service from SFY 2006 through SFY 2012. The OHCA and HP (the state's Medicaid fiscal agent) prepared a claims file employing the same extraction methodology used by the OHCA on a monthly basis to provide updated claims files to MEDai.

The initial file contained individual eligibility records and complete claims for Medicaid eligibles. PHPG created a dataset that identified each individual's eligibility and claims experience during the evaluation period. The dataset is an updated version of the one created for the Third Annual Report issued in early 2012.

The claims extract for the dataset was created in September 2012. PHPG employed completion factors for claims with dates of service during SFY 2009, SFY 2010, SFY 2011 and SFY 2012. Completion factors were applied to account for claims that had been incurred by the OHCA but were unpaid at the time the dataset for each year was created.

Participants were included in the analysis only if they had two months or more of engagement/post-engagement experience and MEDai forecast data available at the time of engagement. Ninety-one percent of participants engaged to-date met these criteria as of the end of SFY 2012.

Appendix C contains a full set of utilization and expenditure exhibits, including cross-tabulated results by tier group. Key findings are presented by major disease category and tier group starting on the following page. Utilization and expenditure findings for diagnoses with small numbers of participants should be interpreted with caution.

Asthma Population Utilization and Expenditures Trends

The SoonerCare HMP through SFY 2012 engaged 1,258 Tier 1 and 4,519 Tier 2 participants with an asthma diagnosis. Asthma was the most expensive diagnosis at the time of engagement for approximately 15 percent of Tier 1 and 29 percent of Tier 2 participants with this diagnosis (see exhibit 2-66).

Exhibit 2-66 – Participants with Asthma as Most Expensive Diagnosis

Enrollment Group	Participants with Diagnosis	Most Expensive Diagnosis	Percent Most Expensive
Tier 1	1,258	185	15%
Tier 2	4,519	1,327	29%
Tiers 1 & 2	5,777	1,512	26%

Over ninety-eight percent of participants with asthma also were diagnosed with another Chronic Impact condition, the most common being hypertension and depression (see exhibit 2-67). More detailed co-morbidity data is provided in Appendix C.

**Exhibit 2-67 – Participants with Asthma
Co-morbidity with Chronic Impact Conditions**

Comorbidity	Participants	%
Asthma	5,777	100.0%
	95	1.6%
+ Hypertension	4,061	70.3%
	18	0.3%
+ Depression	3,777	65.4%
	14	0.2%
+ COPD	3,160	54.7%
	17	0.3%
+ Diabetes	3,043	52.7%
	13	0.2%
+ Lower Back Pain	2,942	50.9%
	11	0.2%

Participants with asthma, the specified comorbidity, and additional comorbidities

Participants ONLY with asthma and the specified comorbidity (no other comorbidities)

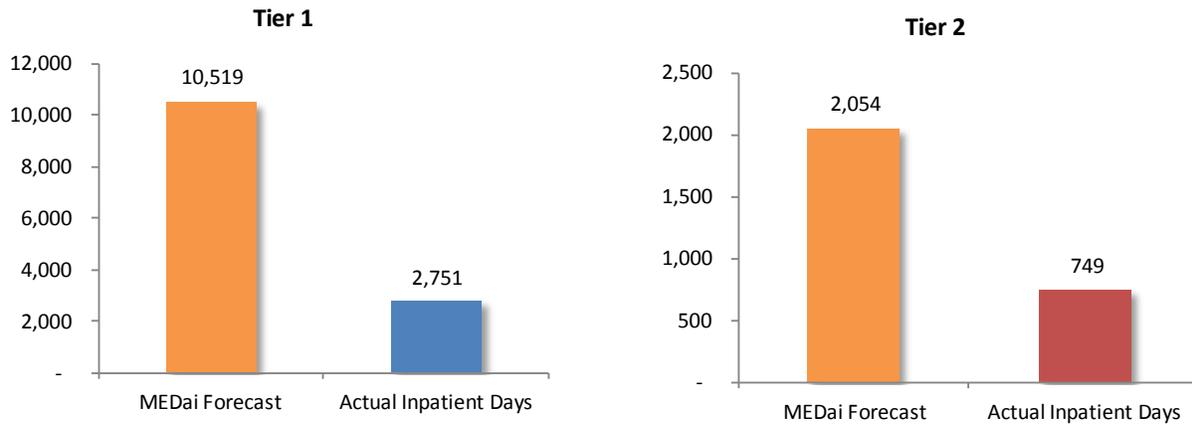
Utilization

PHPG analyzed inpatient hospital and emergency department utilization rates. Hospital utilization was measured by number of inpatient days (both for admissions and readmissions) and emergency department utilization by number of visits per 1,000 participants with asthma as their most expensive diagnosis at the time of engagement.

The purpose of this analysis was to determine if enrollment in nurse care management had an impact on avoidable and expensive acute care episodes. All hospitalizations and emergency department visits for a participant were included in the calculations, regardless of the primary admitting/presenting diagnosis. Nurse care management is intended to be holistic and not limited in its impact to the member’s particular chronic condition.

MEDai forecasted that Tier 1 participants would accrue 10,519 inpatient days per 1,000 participants in the first 12 months following engagement, as compared to 622 per 1,000 for all Oklahomans.³¹ Claims data showed the actual rate was 2,751, or 26 percent of forecast. Tier 2 participants accumulated 749 inpatient days, or 36 percent of forecast (see exhibit 2-68).

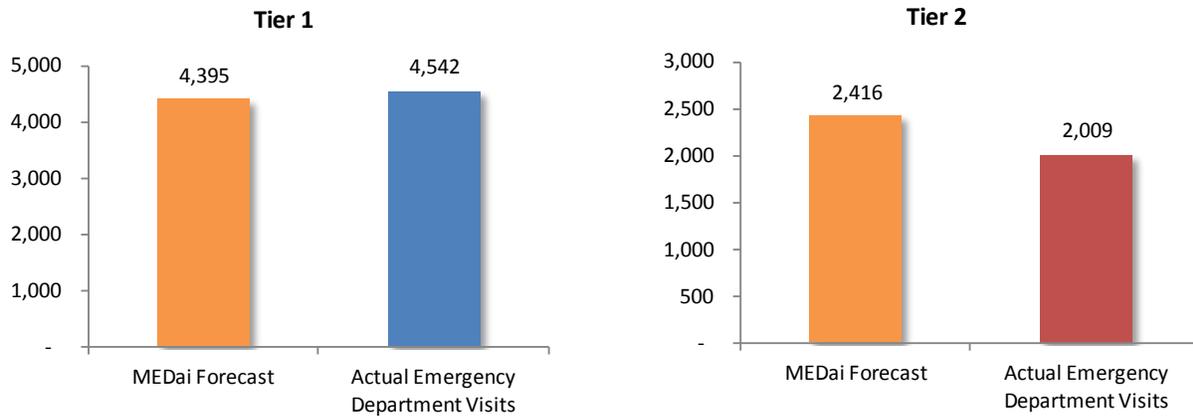
**Exhibit 2-68 – Participants with Asthma as Most Expensive Diagnosis
Inpatient Utilization - First 12 Months Following Engagement, per 1,000 Participants**



³¹ Source: Statehealthfacts.org. “All Oklahomans” rate is across all payer types. Data from 2010 (most recent available).

For Tier 1 participants, MEDai forecasted an emergency department visit rate of 4,395 per 1,000 participants, as compared to 469 per 1,000 for all Oklahomans.³² The actual rate was 4,542, or three percent above forecast. Tier 2 participants were forecasted to visit the emergency department 2,416 times per 1,000 participants, while the actual rate was 2,009, or 83 percent of forecast (see exhibit 2-69).

**Exhibit 2-69 – Participants with Asthma as Most Expensive Diagnosis
Emergency Department Utilization - First 12 Months Following Engagement, per 1,000 Participants**



³² Source: Statehealthfacts.org. “All Oklahomans” rate is across all payer types. Data from 2010 (most recent available).

Medical Expenditures – Total and by Category of Service

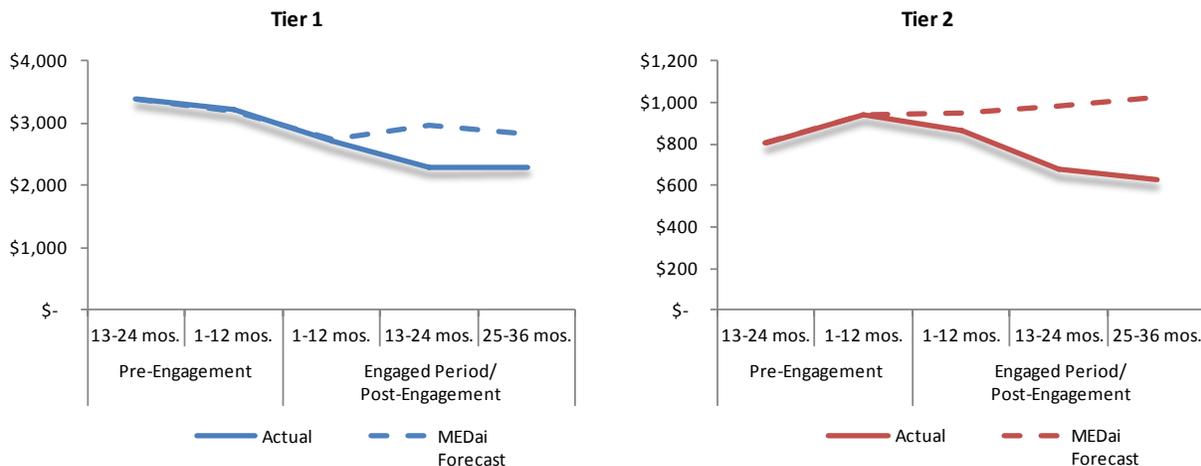
Total PMPM medical expenditures for Tier 1 participants were nearly even with forecast for the first 12 months following engagement but significantly below forecast for months 13 to 36 (see exhibit 2-70):

- Expenditures for months 1 to 12 following engagement were \$2,696, or two percent lower than the forecasted amount of \$2,744.
- Expenditures for months 13 to 24 following engagement were \$2,295, or 22 percent lower than the forecasted amount of \$2,957.
- Expenditures for months 25 to 36 following engagement were \$2,320, or 18 percent lower than the forecasted amount of \$2,835.

Total PMPM medical expenditures for Tier 2 participants were consistently below forecast:

- Expenditures for months 1 to 12 following engagement were \$865, or nine percent lower than the forecasted amount of \$951.
- Expenditures for months 13 to 24 following engagement were \$675, or 31 percent lower than the forecasted amount of \$985.
- Expenditures for months 25 to 36 following engagement were \$629, or 39 percent lower than the forecasted amount of \$1,023.

**Exhibit 2-70 – Participants with Asthma as Most Expensive Diagnosis
Total PMPM Expenditures**



For both Tier 1 and Tier 2 participants, decreased hospital, physician, and behavioral health costs appear to be the drivers of cost savings, based on a comparison of pre-engaged to engaged evaluation periods (see exhibit 2-71).

***Exhibit 2-71 – Participants with Asthma as Most Expensive Diagnosis
PMPM Expenditures by Category of Service***

Category of Service	Tier 1			Tier 2		
	Pre-Engagement: 1-12 months	First 12 months of Engagement	Percent Change	Pre-Engagement: 1-12 months	First 12 months of Engagement	Percent Change
Inpatient Hospital	\$1,134	\$669	-41.0%	\$212	\$176	-17.1%
Outpatient Hospital	\$274	\$261	-4.9%	\$121	\$98	-19.5%
Physician	\$590	\$475	-19.4%	\$212	\$176	-16.8%
Behavioral Health (Psych.)	\$120	\$86	-28.6%	\$59	\$52	-13.4%
Pharmacy	\$308	\$393	27.9%	\$217	\$242	11.5%
All Other	\$776	\$813	4.7%	\$121	\$122	2.6%
Total	\$3,201	\$2,696	-15.8%	\$942	\$865	-8.2%

Total Medical Expenditure Impact of Nurse Care Management

PHPG evaluated the impact of Nurse Care Management on medical expenditures by comparing MEDai forecasted expenditures to actual paid claims data for the 36 months following engagement.

PHPG calculated average PMPM expenditures for the first 12 months following engagement and the 12 months prior to engagement. PHPG then calculated the PMPM percent change forecasted in the MEDai extracts and applied that percentage to the actual paid claims data to arrive at a final forecast for PMPM expenditures that was consistent with PHPG’s dataset.³³

To calculate forecasted expenditures for months 13 and beyond following engagement, PHPG analyzed paid claims data for SoonerCare members that were selected but not engaged in nurse care management (“selected” population). PHPG calculated the trends in actual expenditures by tier across the life of the program (February 2008 to June 2012), and applied the trend factors to participants’ forecasted expenditures for months 1 to 12 following engagement.³⁴

Overall, medical expenditure savings attributable to nurse care management for persons with asthma across both tiers were \$90 PMPM during the first 12 months following engagement, \$344 PMPM for months 13 to 24 and \$413 PMPM for months 25 to 36 (see exhibit 2-72).

**Exhibit 2-72 – Participants with Asthma as Most Expensive Diagnosis
Forecast versus Actual PMPM Medical Expenditures**

Enrollment Group	Engaged Period / Post-Engagement								
	1 to 12 months			13 to 24 months			25 to 36 months		
	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)
Tier 1	\$2,744	\$2,696	98%	\$2,957	\$2,295	78%	\$2,835	\$2,320	82%
Tier 2	\$951	\$865	91%	\$985	\$675	69%	\$1,023	\$629	61%
Tiers 1 & 2	\$1,171	\$1,081	92%	\$1,211	\$867	72%	\$1,253	\$840	67%

³³ For participants with forecasted costs greater than \$144,000 (the maximum amount forecasted by MEDai), PHPG set forecasted costs equal to prior year costs, assuming no increase or decrease in costs.

³⁴ This analysis was limited to SoonerCare members selected as of June 30, 2011 and never engaged to ensure a full 12 months of trend data.

COPD Population Utilization and Expenditures Trends

The SoonerCare HMP through SFY 2012 engaged 1,680 Tier 1 and 5,070 Tier 2 participants with a COPD diagnosis. COPD was the most expensive diagnosis at the time of engagement for approximately 19 percent of Tier 1 and 25 percent of Tier 2 participants with this diagnosis (see exhibit 2-73).

Exhibit 2-73 – Participants with COPD as Most Expensive Diagnosis

Enrollment Group	Participants with Diagnosis	Most Expensive Diagnosis	Percent Most Expensive
Tier 1	1,680	319	19%
Tier 2	5,070	1,251	25%
Tiers 1 & 2	6,750	1,570	23%

Nearly 99 percent of participants with COPD also were diagnosed with another Chronic Impact condition, the most common being hypertension and depression (see exhibit 2-74).

**Exhibit 2-74 – Participants with COPD
Co-morbidity with Chronic Impact Conditions**

Comorbidity	Participants	%
COPD	6,750	100.0%
	75	1.1%
+ Hypertension	5,470	81.0%
	21	0.3%
+ Depression	4,288	63.5%
	5	0.1%
+ Diabetes	3,842	56.9%
	14	0.2%
+ Hyperlipidemia	3,669	54.4%
	4	0.1%
+ Lower Back Pain	3,501	51.9%
	3	0.0%

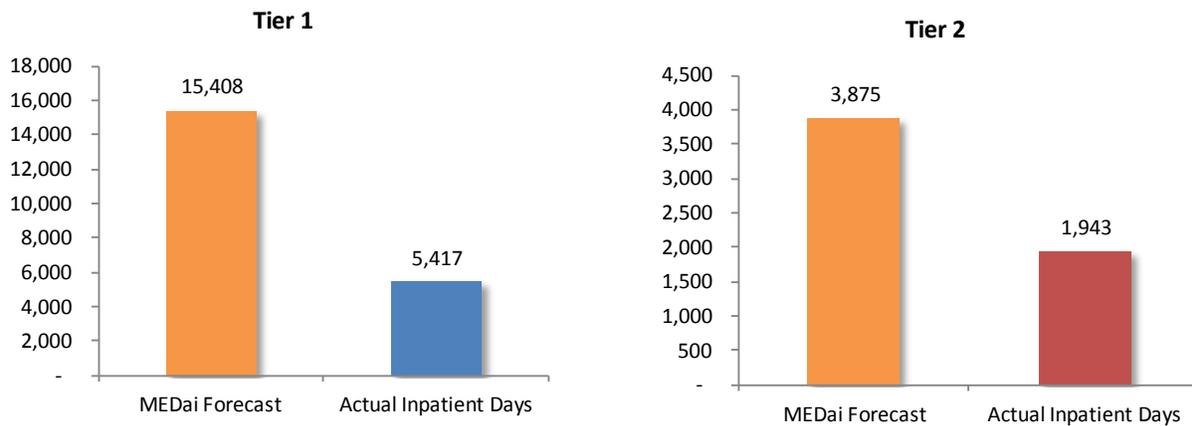
Participants with COPD, the specified comorbidity, and additional comorbidities

Participants ONLY with COPD and the specified comorbidity (no other comorbidities)

Utilization

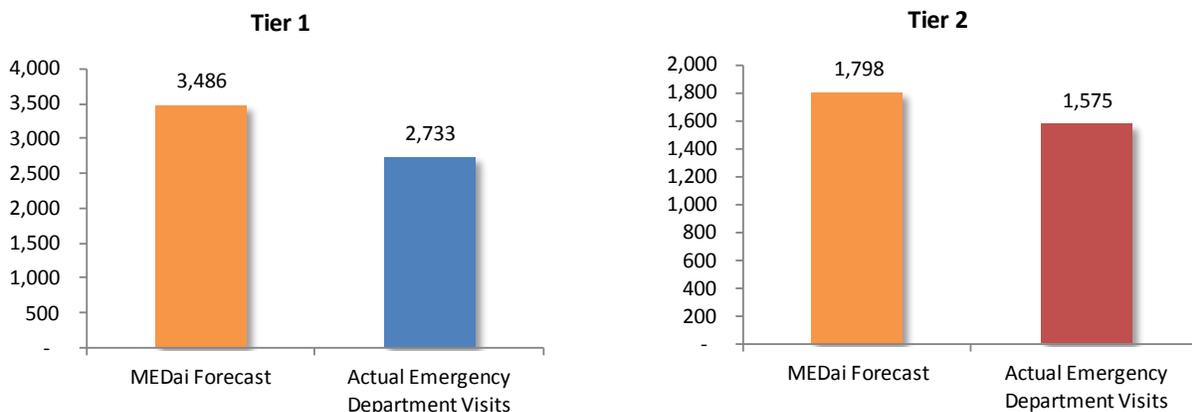
MEDai forecasted that Tier 1 participants would accrue 15,408 inpatient days per 1,000 participants in the first 12 months following engagement. The actual rate was 5,417, or 35 percent of forecast. Tier 2 participants accumulated 1,943 inpatient days, or 50 percent of forecast (see exhibit 2-75).

**Exhibit 2-75 – Participants with COPD as Most Expensive Diagnosis
Inpatient Utilization - First 12 Months Following Engagement, per 1,000 Participants**



For Tier 1 participants, MEDai forecasted an emergency department visit rate of 3,486 per 1,000 participants. The actual rate was 2,733, or 78 percent of forecast. Tier 2 participants were forecasted to visit the emergency department 1,798 times per 1,000 participants, while the actual rate was 1,575, or 88 percent of forecast (see exhibit 2-76).

**Exhibit 2-76 – Participants with COPD as Most Expensive Diagnosis
Emergency Department Utilization - First 12 Months Following Engagement, per 1,000 Participants**



Medical Expenditures – Total and by Category of Service

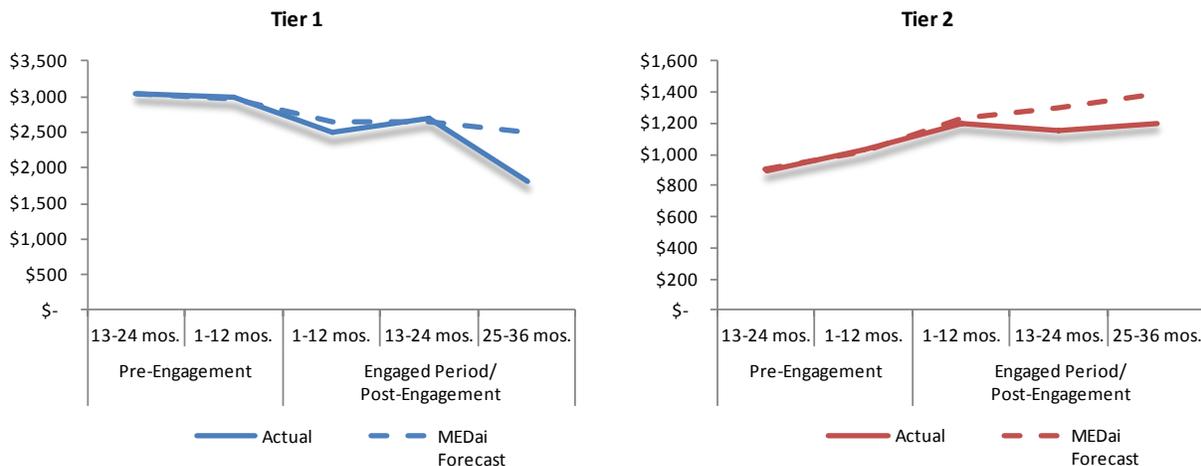
Total PMPM medical expenditures for Tier 1 participants were relatively close to forecast for the first 24 months before dropping below forecast in months 25 to 36 (see exhibit 2-77):

- Expenditures for months 1 to 12 following engagement were \$2,485, or six percent lower than the forecasted amount of \$2,651.
- Expenditures for months 13 to 24 following engagement were \$2,688, or one percent higher than the forecasted amount of \$2,652.
- Expenditures for months 25 to 36 following engagement were \$1,830, or 27 percent lower than the forecasted amount of \$2,491.

Total PMPM medical expenditures for Tier 2 participants were consistently below forecast, with the gap widening over time:

- Expenditures for months 1 to 12 following engagement were \$1,203, or two percent lower than the forecasted amount of \$1,232.
- Expenditures for months 13 to 24 following engagement were \$1,153, or 11 percent lower than the forecasted amount of \$1,302.
- Expenditures for months 25 to 36 following engagement were \$1,203, or 13 percent lower than the forecasted amount of \$1,386.

**Exhibit 2-77 – Participants with COPD as Most Expensive Diagnosis
Total PMPM Expenditures**



Moderate increases in minor categories of service (“all other” line item) for Tier 1 participants were more than offset by significant reductions in all major categories of service. Tier 2 participants, however, experienced increased expenditures for all categories of service, most notably inpatient hospital services (see exhibit 2-78).

**Exhibit 2-78 – Participants with COPD as Most Expensive Diagnosis
PMPM Expenditures by Category of Service**

Category of Service	Tier 1			Tier 2		
	Pre-Engagement: 1-12 months	First 12 months of Engagement	Percent Change	Pre-Engagement: 1-12 months	First 12 months of Engagement	Percent Change
Inpatient Hospital	\$1,254	\$932	-25.7%	\$297	\$384	29.4%
Outpatient Hospital	\$194	\$168	-13.4%	\$109	\$110	1.3%
Physician	\$453	\$352	-22.4%	\$185	\$208	12.0%
Behavioral Health (Psych.)	\$62	\$53	-15.6%	\$19	\$22	16.4%
Pharmacy	\$625	\$529	-15.5%	\$270	\$288	6.4%
All Other	\$387	\$453	16.9%	\$145	\$192	32.4%
Total	\$2,976	\$2,485	-16.5%	\$1,025	\$1,203	17.4%

Total Medical Expenditure Impact of Nurse Care Management

Overall, medical expenditure savings attributable to nurse care management for persons with COPD across both tiers were \$62 PMPM during the first 12 months following engagement, \$119 PMPM for months 13 to 24 and \$272 PMPM for months 25 to 36 (see exhibit 2-79).

***Exhibit 2-79 – Participants with COPD as Most Expensive Diagnosis
Forecast versus Actual PMPM Medical Expenditures***

Enrollment Group	Engaged Period / Post-Engagement								
	1 to 12 months			13 to 24 months			25 to 36 months		
	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)
Tier 1	\$2,651	\$2,485	94%	\$2,652	\$2,688	101%	\$2,491	\$1,830	73%
Tier 2	\$1,232	\$1,203	98%	\$1,302	\$1,153	89%	\$1,386	\$1,203	87%
Tiers 1 & 2	\$1,521	\$1,459	96%	\$1,575	\$1,456	92%	\$1,598	\$1,326	83%

Congestive Heart Failure Population Utilization and Expenditures Trends

The SoonerCare HMP through SFY 2012 engaged 1,112 Tier 1 and 2,315 Tier 2 participants with a congestive heart failure diagnosis. Congestive heart failure was the most expensive diagnosis at the time of engagement for approximately 10 percent of Tier 1 and 11 percent of Tier 2 participants with this diagnosis (see exhibit 2-80).

Exhibit 2-80 – Participants with Congestive Heart Failure as Most Expensive Diagnosis

Enrollment Group	Participants with Diagnosis	Most Expensive Diagnosis	Percent Most Expensive
Tier 1	1,112	112	10%
Tier 2	2,315	246	11%
Tiers 1 & 2	3,427	358	10%

Nearly all participants with congestive heart failure also were diagnosed with another Chronic Impact condition, the most common being hypertension and COPD (see exhibit 2-81).

Exhibit 2-81 – Participants with Congestive Heart Failure Co-morbidity with Chronic Impact Conditions

Comorbidity	Participants	%
Congestive Heart Failure	3,427	100.0%
	21	0.6%
+ Hypertension	3,089	90.1%
	6	0.2%
+ COPD	2,254	65.8%
	0	0.0%
+ Coronary Artery Disease	2,212	64.5%
	2	0.1%
+ Depression	2,147	62.6%
	1	0.0%
+ Hyperlipidemia	2,135	62.3%
	2	0.1%

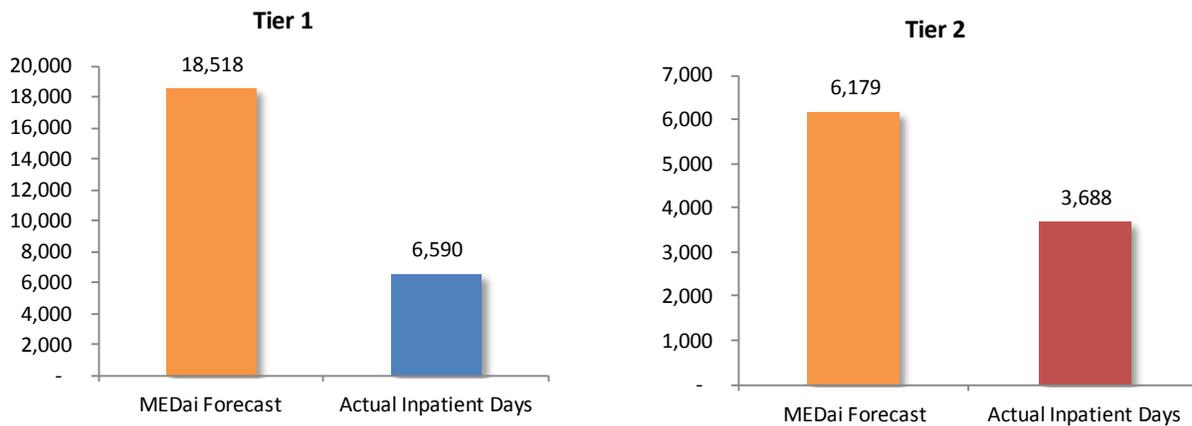
Participants with congestive heart failure, the specified comorbidity, and additional comorbidities

Participants ONLY with congestive heart failure and the specified comorbidity (no other comorbidities)

Utilization

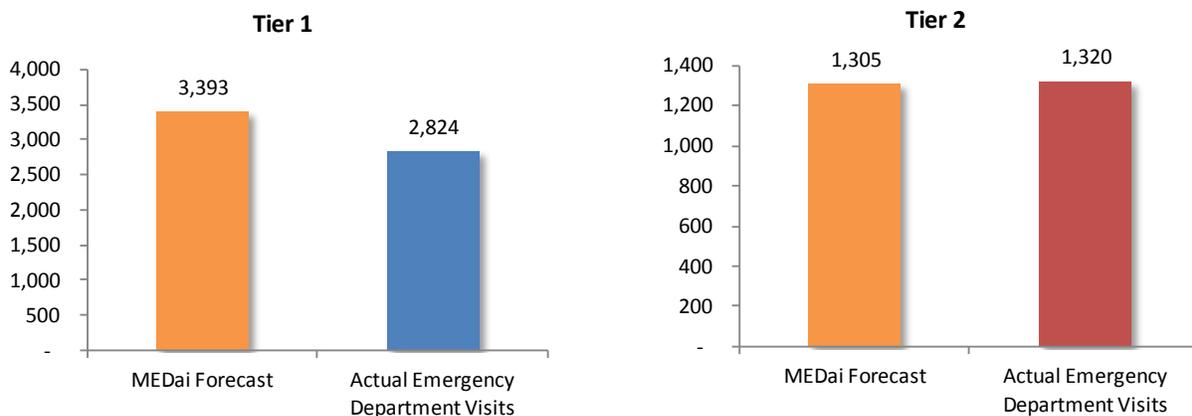
MEDai forecasted that Tier 1 participants would accrue 18,518 inpatient days per 1,000 participants in the first 12 months following engagement. The actual rate was 6,590, or 36 percent of forecast. Tier 2 participants accumulated 3,688 inpatient days, or 60 percent of forecast (see exhibit 2-82).

Exhibit 2-82 – Participants with Congestive Heart Failure as Most Expensive Diagnosis Inpatient Utilization - First 12 Months Following Engagement, per 1,000 Participants



For Tier 1 participants, MEDai forecasted an emergency department visit rate of 3,393 per 1,000 participants. The actual rate was 2,824, or 83 percent of forecast. Tier 2 participants were forecasted to visit the emergency department 1,305 times per 1,000 participants, while the actual rate was 1,320, or one percent above forecast (see exhibit 2-83).

Exhibit 2-83 – Participants with Congestive Heart Failure as Most Expensive Diagnosis Emergency Department Utilization - First 12 Months Following Engagement, per 1,000 Participants



Medical Expenditures – Total and by Category of Service

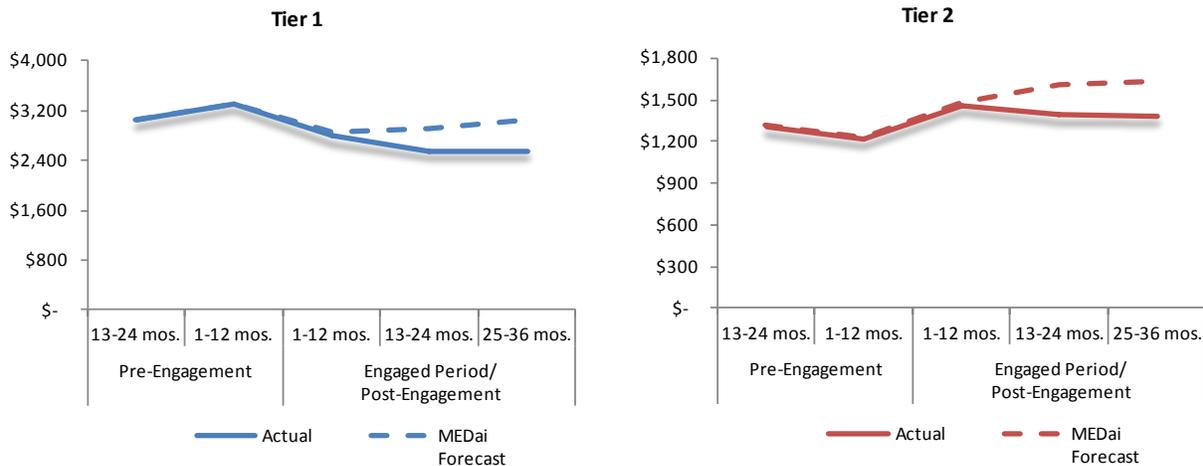
Total PMPM medical expenditures for Tier 1 participants were nearly even with forecast for the first 12 months before dropping below forecast in months 13 and beyond (see exhibit 2-84):

- Expenditures for months 1 to 12 following engagement were \$2,777, or two percent lower than the forecasted amount of \$2,846.
- Expenditures for months 13 to 24 following engagement were \$2,557, or 13 percent lower than the forecasted amount of \$2,923.
- Expenditures for months 25 to 36 following engagement were \$2,558, or 16 percent lower than the forecasted amount of \$3,054.

Total PMPM medical expenditures for Tier 2 participants also were even with forecast for the first 12 months before dropping below forecast in months 13 and beyond:

- Expenditures for months 1 to 12 following engagement were \$1,469, or one percent lower than the forecasted amount of \$1,484.
- Expenditures for months 13 to 24 following engagement were \$1,395, or 13 percent lower than the forecasted amount of \$1,602.
- Expenditures for months 25 to 36 following engagement were \$1,393, or 15 percent lower than the forecasted amount of \$1,707.

**Exhibit 2-84 – Participants with Congestive Heart Failure as Most Expensive Diagnosis
Total PMPM Medical Expenditures**



Savings for Tier 1 participants were derived primarily from decreases in inpatient hospital and physician expenditures. Tier 2 participants experienced a significant drop in outpatient hospital expenditures, although this was offset by increases in other service categories (see exhibit 2-85).

**Exhibit 2-85 – Participants with Congestive Heart Failure as Most Expensive Diagnosis
PMPM Expenditures by Category of Service**

Category of Service	Tier 1			Tier 2		
	Pre-Engagement: 1-12 months	First 12 months of Engagement	Percent Change	Pre-Engagement: 1-12 months	First 12 months of Engagement	Percent Change
Inpatient Hospital	\$1,734	\$1,244	-28.2%	\$536	\$691	29.1%
Outpatient Hospital	\$277	\$273	-1.7%	\$135	\$89	-34.2%
Physician	\$492	\$414	-15.9%	\$202	\$218	8.1%
Behavioral Health (Psych.)	\$53	\$48	-8.9%	\$14	\$18	22.5%
Pharmacy	\$311	\$326	4.8%	\$202	\$239	18.3%
All Other	\$441	\$472	7.1%	\$140	\$214	53.3%
Total	\$3,308	\$2,777	-16.1%	\$1,228	\$1,469	19.6%

Total Medical Expenditure Impact of Nurse Care Management

Overall, medical expenditure savings attributable to nurse care management across both tiers for persons with congestive heart failure were \$30 PMPM during the first 12 months following engagement, \$280 PMPM for months 13 to 24 and \$303 PMPM for months 25 to 36 (see exhibit 2-86).

***Exhibit 2-86 – Participants with Congestive Heart Failure as Most Expensive Diagnosis
Forecast versus Actual PMPM Medical Expenditures***

Enrollment Group	Engaged Period / Post-Engagement								
	1 to 12 months			13 to 24 months			25 to 36 months		
	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)
Tier 1	\$2,846	\$2,777	98%	\$2,923	\$2,557	87%	\$3,054	\$2,558	84%
Tier 2	\$1,484	\$1,469	99%	\$1,602	\$1,395	87%	\$1,632	\$1,393	85%
Tiers 1 & 2	\$1,910	\$1,880	98%	\$2,012	\$1,732	86%	\$2,010	\$1,707	85%

Coronary Artery Disease Population Utilization and Expenditures Trends

The SoonerCare HMP through SFY 2012 engaged 1,443 Tier 1 and 3,594 Tier 2 participants with a coronary artery disease diagnosis. Coronary artery disease was the most expensive diagnosis at the time of engagement for approximately 20 percent of Tier 1 and 21 percent of Tier 2 participants with this diagnosis (see exhibit 2-87).

Exhibit 2-87 – Participants with Coronary Artery Disease as Most Expensive Diagnosis

Enrollment Group	Participants with Diagnosis	Most Expensive Diagnosis	Percent Most Expensive
Tier 1	1,443	282	20%
Tier 2	3,594	772	21%
Tiers 1 & 2	5,037	1,054	21%

Over 99 percent of participants with coronary artery disease also were diagnosed with another Chronic Impact condition, the most common being hypertension and hyperlipidemia (see exhibit 2-88).

Exhibit 2-88 – Participants with Coronary Artery Disease Co-morbidity with Chronic Impact Conditions

Comorbidity	Participants	%
Coronary Artery Disease	5,037	100.0%
	43	0.9%
+ Hypertension	4,481	89.0%
	13	0.3%
+ Hyperlipidemia	3,346	66.4%
	5	0.1%
+ COPD	3,032	60.2%
	6	0.1%
+ Depression	3,019	59.9%
	3	0.1%
+ Diabetes	2,899	57.6%
	2	0.0%

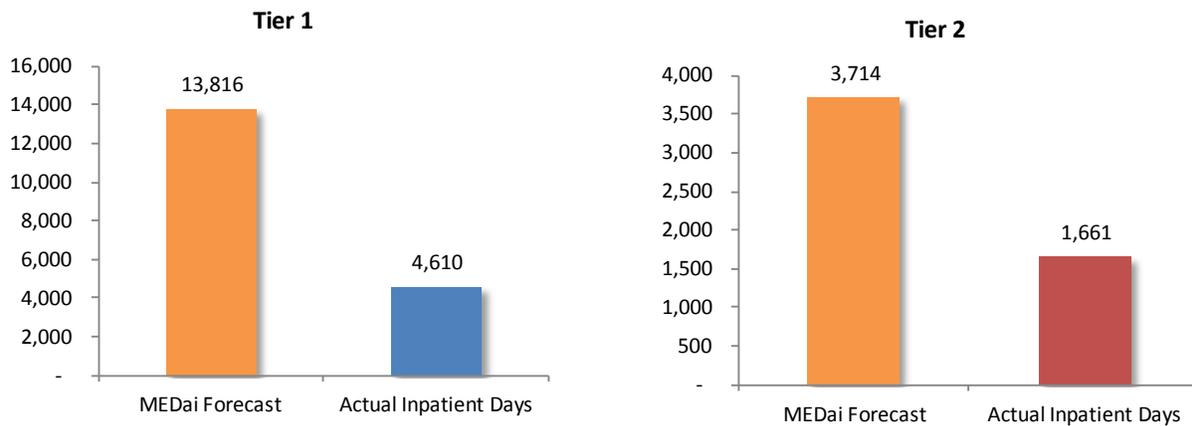
Participants with coronary artery disease, the specified comorbidity, and additional comorbidities

Participants ONLY with coronary artery disease and the specified comorbidity (no other comorbidities)

Utilization

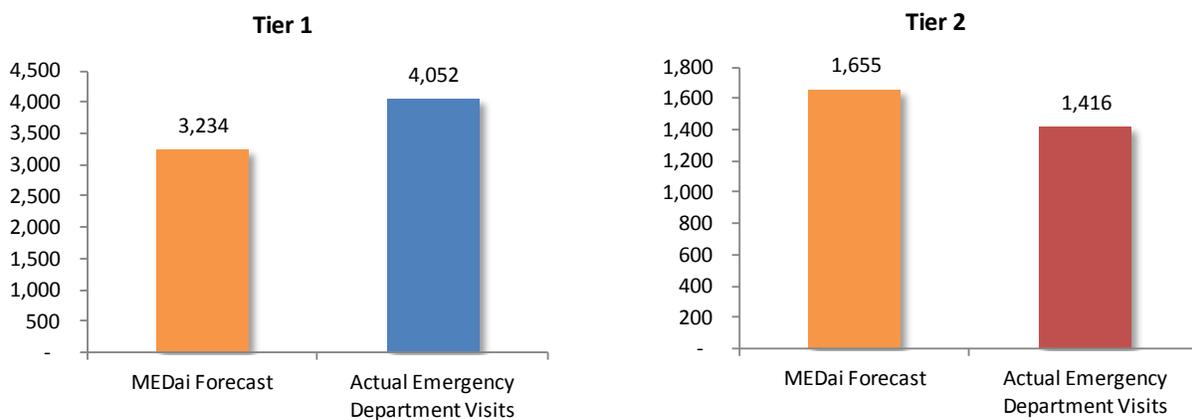
MEDai forecasted that Tier 1 participants would accrue 13,816 inpatient days per 1,000 participants in the first 12 months following engagement. The actual rate was 4,610, or 33 percent of forecast. Tier 2 participants accumulated 1,661 inpatient days, or 45 percent of forecast (see exhibit 2-89).

Exhibit 2-89 – Participants with Coronary Artery Disease as Most Expensive Diagnosis Inpatient Utilization - First 12 Months Following Engagement, per 1,000 Participants



For Tier 1 participants, MEDai forecasted an emergency department visit rate of 3,234 per 1,000 participants. The actual rate was 4,052, or 25 percent above forecast. Tier 2 participants were forecasted to visit the emergency department 1,655 times per 1,000 participants, while the actual rate was 1,416, or 86 percent of forecast (see exhibit 2-90).

Exhibit 2-90 – Participants with Coronary Artery Disease as Most Expensive Diagnosis Emergency Department Utilization - First 12 Months Following Engagement, per 1,000 Participants



Medical Expenditures – Total and by Category of Service

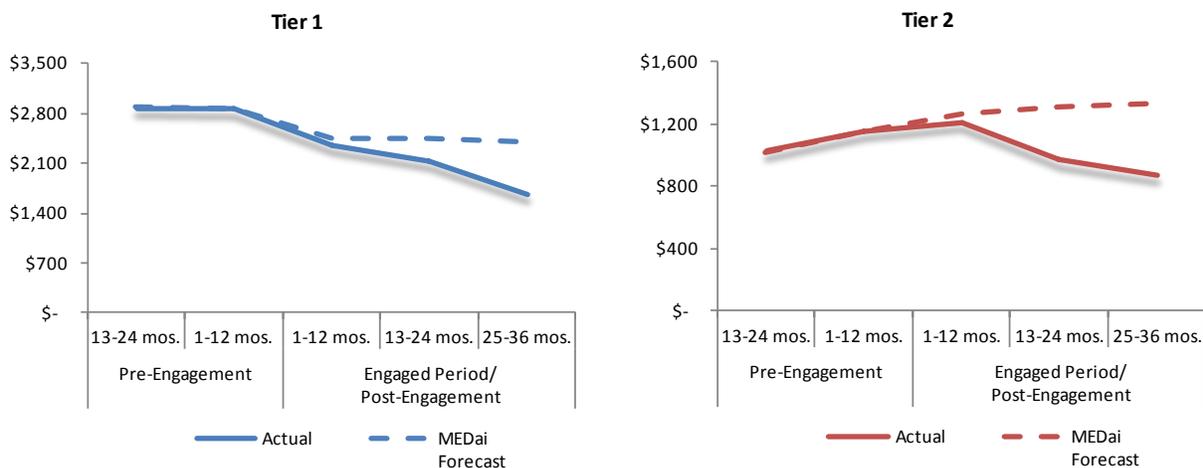
Total PMPM medical expenditures for Tier 1 participants were relatively close to forecast for the first 12 months before dropping significantly below forecast in months 13 to 36 (see exhibit 2-91):

- Expenditures for months 1 to 12 following engagement were \$2,362, or four percent lower than the forecasted amount of \$2,449.
- Expenditures for months 13 to 24 following engagement were \$2,136, or 13 percent higher than the forecasted amount of \$2,444.
- Expenditures for months 25 to 36 following engagement were \$1,668, or 31 percent lower than the forecasted amount of \$2,407.

Total PMPM medical expenditures for Tier 2 participants were also were near forecast for the first 12 months before dropping significantly below forecast in months 13 to 36:

- Expenditures for months 1 to 12 following engagement were \$1,212, or five percent lower than the forecasted amount of \$1,270.
- Expenditures for months 13 to 24 following engagement were \$967, or 26 percent lower than the forecasted amount of \$1,312.
- Expenditures for months 25 to 36 following engagement were \$873, or 34 percent lower than the forecasted amount of \$1,331.

**Exhibit 2-91 – Participants with Coronary Artery Disease as Most Expensive Diagnosis
Total PMPM Medical Expenditures**



Savings for Tier 1 participants were driven by decreases in inpatient hospital and physician expenditures, while Tier 2 participants saw decreases primarily in outpatient hospital costs that were offset by increases on the inpatient side (see exhibit 2-92).

***Exhibit 2-92 – Participants with Coronary Artery Disease as Most Expensive Diagnosis
PMPM Expenditures by Category of Service***

Category of Service	Tier 1			Tier 2		
	Pre-Engagement: 1-12 months	First 12 months of Engagement	Percent Change	Pre-Engagement: 1-12 months	First 12 months of Engagement	Percent Change
Inpatient Hospital	\$1,450	\$1,002	-30.9%	\$441	\$485	10.0%
Outpatient Hospital	\$280	\$259	-7.6%	\$151	\$133	-11.9%
Physician	\$513	\$382	-25.5%	\$234	\$224	-4.1%
Behavioral Health (Psych.)	\$27	\$39	42.7%	\$19	\$24	26.1%
Pharmacy	\$324	\$369	14.1%	\$216	\$227	4.9%
All Other	\$273	\$311	13.7%	\$94	\$119	27.1%
Total	\$2,867	\$2,362	-17.6%	\$1,154	\$1,212	5.0%

Total Medical Expenditure Impact of Nurse Care Management

Overall, medical expenditure savings attributable to nurse care management for persons with coronary artery disease across both tiers were \$67 PMPM during the first 12 months following engagement, \$335 PMPM for months 13 to 24 and \$524 PMPM for months 25 to 36 (see exhibit 2-93).

***Exhibit 2-93 – Participants with Coronary Artery Disease as Most Expensive Diagnosis
Forecast versus Actual PMPM Medical Expenditures***

Enrollment Group	Engaged Period / Post-Engagement								
	1 to 12 months			13 to 24 months			25 to 36 months		
	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)
Tier 1	\$2,449	\$2,362	96%	\$2,444	\$2,136	87%	\$2,407	\$1,668	69%
Tier 2	\$1,270	\$1,212	95%	\$1,312	\$967	74%	\$1,331	\$873	66%
Tiers 1 & 2	\$1,586	\$1,519	96%	\$1,620	\$1,285	79%	\$1,612	\$1,088	67%

Diabetes Mellitus Population Utilization and Expenditures Trends

The SoonerCare HMP through SFY 2012 engaged 1,703 Tier 1 and 5,906 Tier 2 participants with a diabetes mellitus diagnosis. Diabetes mellitus was the most expensive diagnosis at the time of engagement for approximately 35 percent of Tier 1 and 48 percent of Tier 2 participants with this diagnosis (see exhibit 2-94).

Exhibit 2-94 – Participants with Diabetes Mellitus as Most Expensive Diagnosis

Enrollment Group	Participants with Diagnosis	Most Expensive Diagnosis	Percent Most Expensive
Tier 1	1,703	602	35%
Tier 2	5,906	2,857	48%
Tiers 1 & 2	7,609	3,459	45%

Nearly 99 percent of participants with diabetes mellitus also were diagnosed with another Chronic Impact condition, the most common being hypertension and depression (see exhibit 2-95).

Exhibit 2-95 – Participants with Diabetes Mellitus Co-morbidity with Chronic Impact Conditions

Comorbidity	Participants	%
Diabetes	7,609	100.0%
	116	1.5%
+ Hypertension	6,306	82.9%
	52	0.7%
+ Depression	4,560	59.9%
	12	0.2%
+ Hyperlipidemia	4,479	58.9%
	10	0.1%
+ COPD	3,891	51.1%
	9	0.1%
+ Coronary Artery Disease	3,471	45.6%
	9	0.1%

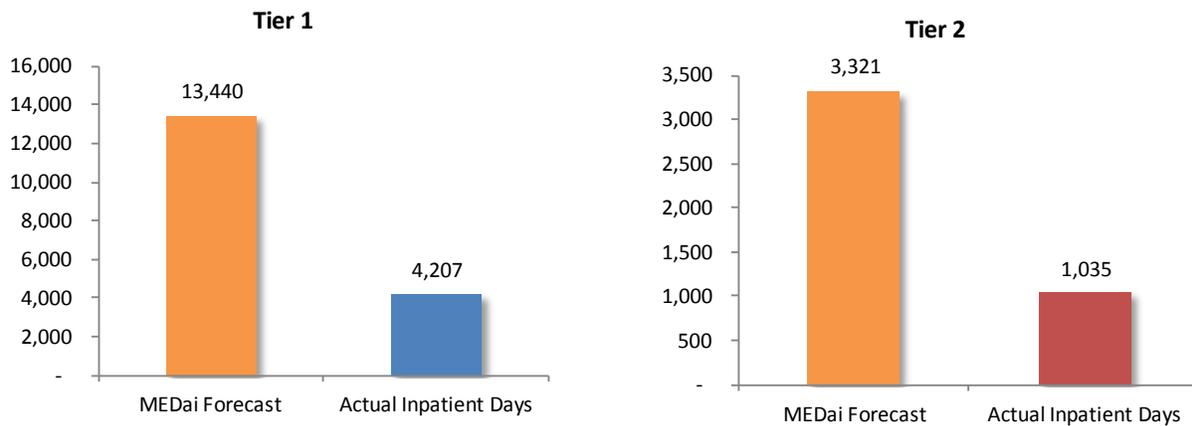
Participants with diabetes, the specified comorbidity, and additional comorbidities

Participants ONLY with diabetes and the specified comorbidity (no other comorbidities)

Utilization

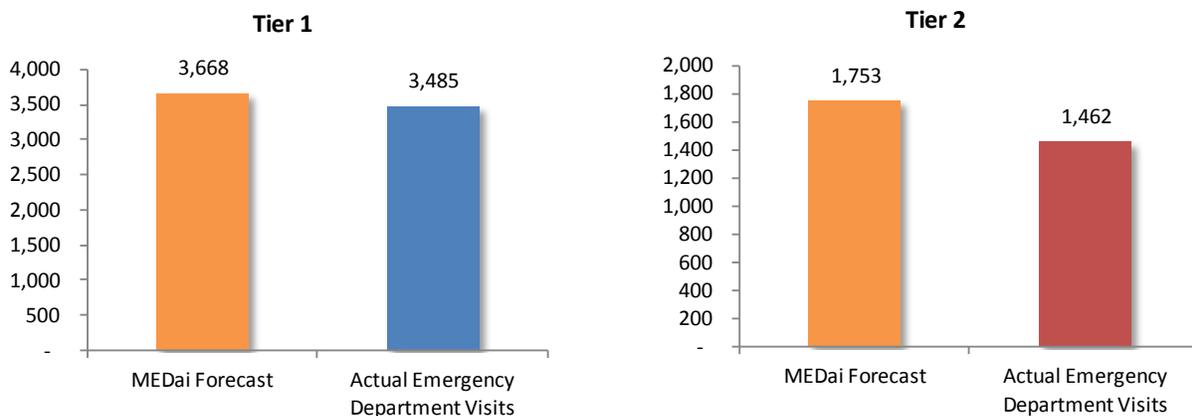
MEDai forecasted that Tier 1 participants would accrue 13,440 inpatient days per 1,000 participants in the first 12 months following engagement. The actual rate was 4,207, or 31 percent of forecast. Tier 2 participants accumulated 1,035 inpatient days, or 31 percent of forecast (see exhibit 2-96).

**Exhibit 2-96 – Participants with Diabetes Mellitus as Most Expensive Diagnosis
Inpatient Utilization - First 12 Months Following Engagement, per 1,000 Participants**



For Tier 1 participants, MEDai forecasted an emergency department visit rate of 3,668 per 1,000 participants. The actual rate was 3,485, or 95 percent of forecast. Tier 2 participants were forecasted to visit the emergency department 1,753 times per 1,000 participants, while the actual rate was 1,462, or 83 percent of forecast (see exhibit 2-97).

**Exhibit 2-97 – Participants with Diabetes Mellitus as Most Expensive Diagnosis
Emergency Department Utilization - First 12 Months Following Engagement, per 1,000 Participants**



Medical Expenditures – Total and by Category of Service

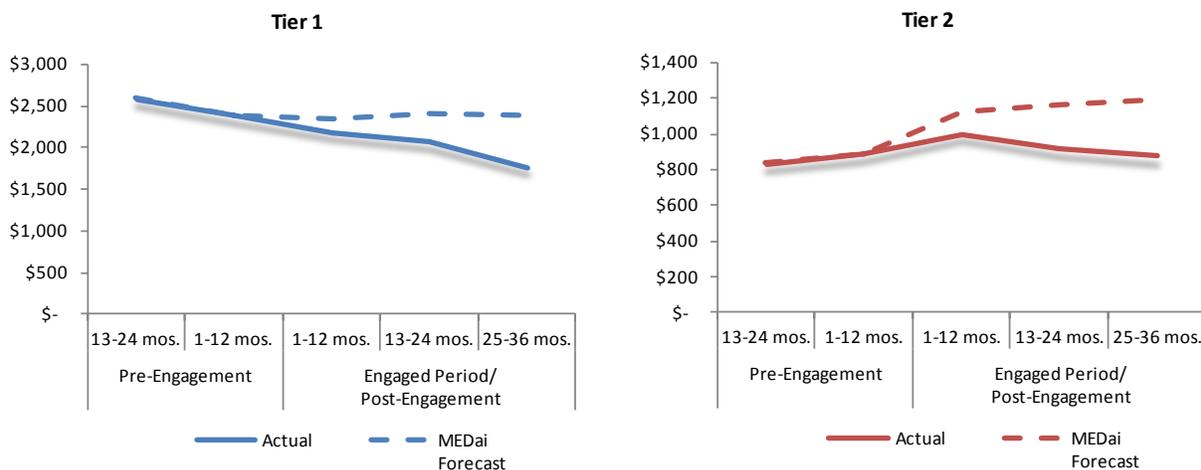
Total PMPM medical expenditures for Tier 1 participants were relatively close to forecast for the first 12 months before dropping significantly below forecast in months 13 to 36 (see exhibit 2-98):

- Expenditures for months 1 to 12 following engagement were \$2,195, or six percent lower than the forecasted amount of \$2,343.
- Expenditures for months 13 to 24 following engagement were \$2,074, or 14 percent lower than the forecasted amount of \$2,398.
- Expenditures for months 25 to 36 following engagement were \$1,769, or 26 percent lower than the forecasted amount of \$2,396.

Total PMPM medical expenditures for Tier 2 participants were consistently below forecast, with the gap widening over time:

- Expenditures for months 1 to 12 following engagement were \$999, or 11 percent lower than the forecasted amount of \$1,127.
- Expenditures for months 13 to 24 following engagement were \$915, or 22 percent lower than the forecasted amount of \$1,166.
- Expenditures for months 25 to 36 following engagement were \$873, or 27 percent lower than the forecasted amount of \$1,194.

**Exhibit 2-98 – Participants with Diabetes Mellitus as Most Expensive Diagnosis
Total PMPM Expenditures**



Savings for Tier 1 participants were driven by decreases in hospital and physician expenditures, which were partially offset by increases in other minor categories of service. Expenditures for Tier 2 participants increased across all categories of service except outpatient hospital (see exhibit 2-99).

**Exhibit 2-99 – Participants with Diabetes Mellitus as Most Expensive Diagnosis
PMPM Expenditures by Category of Service**

Category of Service	Tier 1			Tier 2		
	Pre-Engagement: 1-12 months	First 12 months of Engagement	Percent Change	Pre-Engagement: 1-12 months	First 12 months of Engagement	Percent Change
Inpatient Hospital	\$990	\$764	-22.9%	\$187	\$223	19.1%
Outpatient Hospital	\$230	\$217	-6.0%	\$112	\$112	-0.1%
Physician	\$438	\$373	-14.9%	\$199	\$203	2.1%
Behavioral Health (Psych.)	\$40	\$43	8.3%	\$21	\$26	27.5%
Pharmacy	\$351	\$358	2.0%	\$255	\$282	10.8%
All Other	\$339	\$441	29.9%	\$116	\$152	31.7%
Total	\$2,389	\$2,195	-8.1%	\$889	\$999	12.3%

Total Medical Expenditure Impact of Nurse Care Management

Overall, medical expenditure savings attributable to nurse care management for persons with diabetes mellitus across both tiers were \$132 PMPM during the first 12 months following engagement, \$260 PMPM for months 13 to 24 and \$368 PMPM for months 25 to 36 (see exhibit 2-100).

***Exhibit 2-100 – Participants with Diabetes Mellitus as Most Expensive Diagnosis
Forecast versus Actual PMPM Medical Expenditures***

Enrollment Group	Engaged Period / Post-Engagement								
	1 to 12 months			13 to 24 months			25 to 36 months		
	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)
Tier 1	\$2,343	\$2,195	94%	\$2,398	\$2,074	86%	\$2,396	\$1,769	74%
Tier 2	\$1,127	\$999	89%	\$1,166	\$915	78%	\$1,194	\$873	73%
Tiers 1 & 2	\$1,338	\$1,206	90%	\$1,378	\$1,118	81%	\$1,406	\$1,038	74%

Hypertension Population Utilization and Expenditures Trends

The SoonerCare HMP through SFY 2012 engaged 2,485 Tier 1 and 9,020 Tier 2 participants with a hypertension diagnosis. Hypertension was the most expensive diagnosis at the time of engagement for approximately 17 percent of Tier 1 and 23 percent of Tier 2 participants with this diagnosis (see exhibit 2-101).

Exhibit 2-101 – Participants with Hypertension as Most Expensive Diagnosis

Enrollment Group	Participants with Diagnosis	Most Expensive Diagnosis	Percent Most Expensive
Tier 1	2,485	427	17%
Tier 2	9,020	2,063	23%
Tiers 1 & 2	11,505	2,490	22%

Nearly 98 percent of participants with hypertension also were diagnosed with another Chronic Impact condition, the most common being depression and diabetes (see exhibit 2-102).

Exhibit 2-102 – Participants with Hypertension Co-morbidity with Chronic Impact Conditions

Comorbidity	Participants	%
Hypertension	11,505	100.0%
	251	2.2%
+ Depression	6,851	59.5%
	25	0.2%
+ Diabetes	6,391	55.5%
	24	0.2%
+ COPD	6,284	54.6%
	52	0.5%
+ Hyperlipidemia	6,080	52.8%
	42	0.4%
+ Lower Back Pain	5,389	46.8%
	30	0.3%

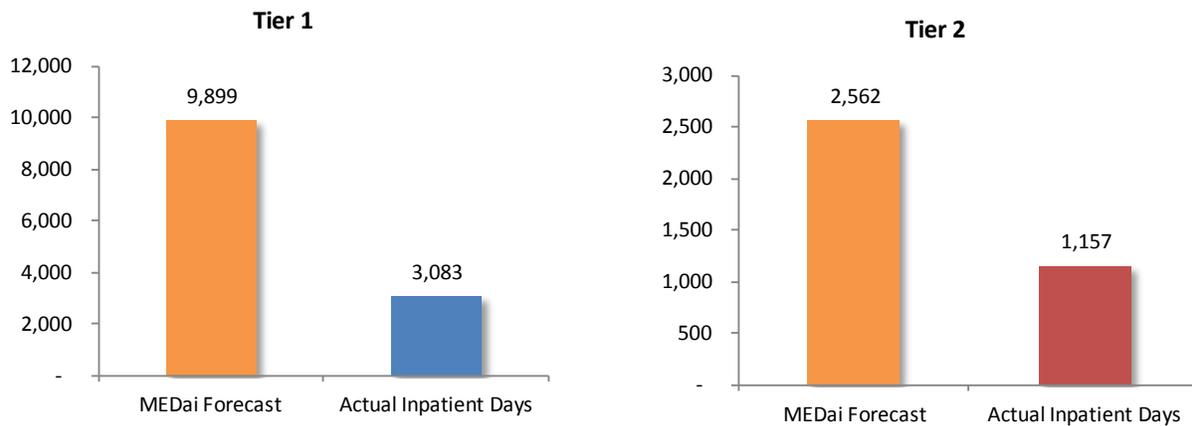
Participants with hypertension, the specified comorbidity, and additional comorbidities

Participants ONLY with hypertension and the specified comorbidity (no other comorbidities)

Utilization

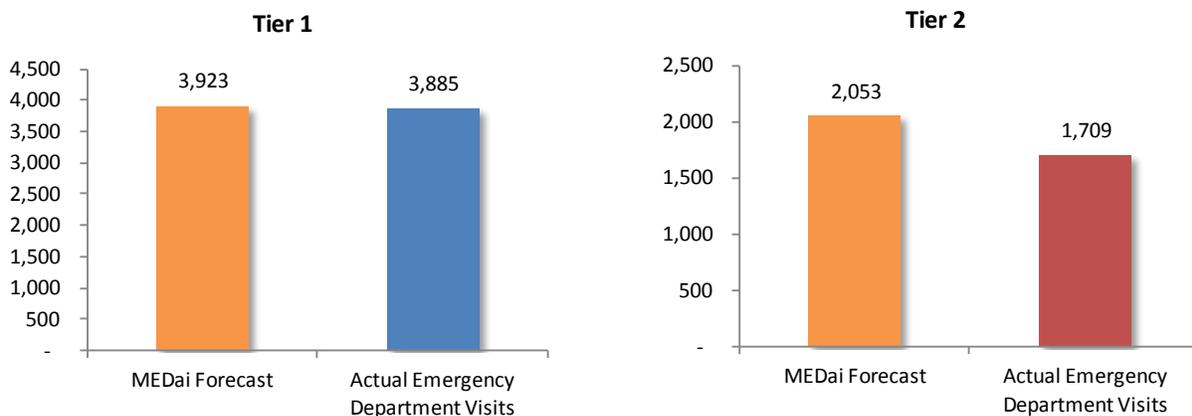
MEDai forecasted that Tier 1 participants would accrue 9,899 inpatient days per 1,000 participants in the first 12 months following engagement. The actual rate was 3,083, or 31 percent of forecast. Tier 2 participants accumulated 1,157 inpatient days, or 45 percent of forecast (see exhibit 2-103).

**Exhibit 2-103 – Participants with Hypertension as Most Expensive Diagnosis
Inpatient Utilization - First 12 Months Following Engagement, per 1,000 Participants**



For Tier 1 participants, MEDai forecasted an emergency department visit rate of 3,923 per 1,000 participants. The actual rate was 3,885, just below forecast. Tier 2 participants were forecasted to visit the emergency department 2,053 times per 1,000 participants, while the actual rate was 1,709, or 83 percent of forecast (see exhibit 2-104).

**Exhibit 2-104 – Participants with Hypertension as Most Expensive Diagnosis
Emergency Department Utilization - First 12 Months Following Engagement, per 1,000 Participants**



Medical Expenditures – Total and by Category of Service

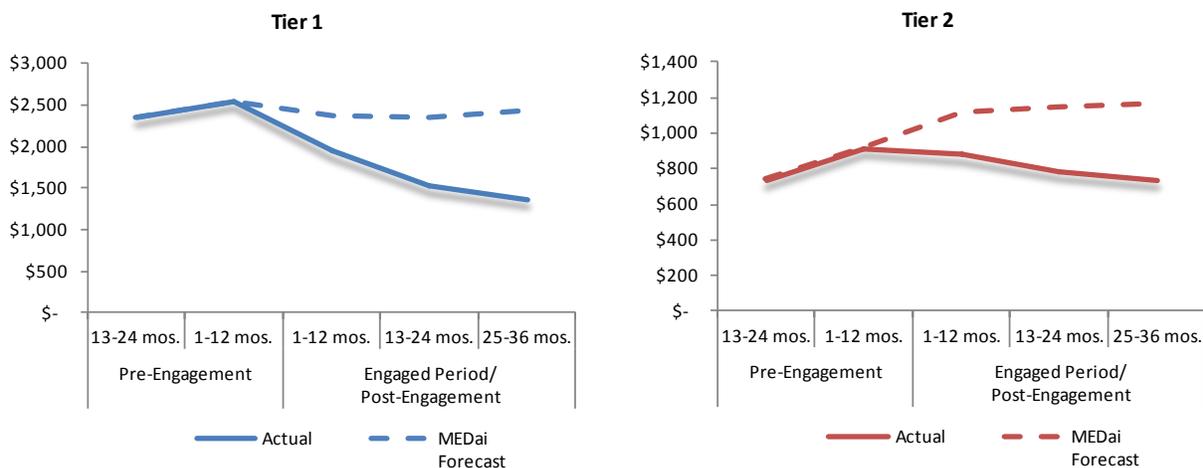
Total PMPM medical expenditures for Tier 1 participants were consistently well below forecast, with the gap widening over time (see exhibit 2-105):

- Expenditures for months 1 to 12 following engagement were \$1,940, or 18 percent lower than the forecasted amount of \$2,367.
- Expenditures for months 13 to 24 following engagement were \$1,522, or 35 percent lower than the forecasted amount of \$2,357.
- Expenditures for months 25 to 36 following engagement were \$1,362, or 44 percent lower than the forecasted amount of \$2,442.

Total PMPM medical expenditures for Tier 2 participants also were consistently well below forecast:

- Expenditures for months 1 to 12 following engagement were \$879, or 21 percent lower than the forecasted amount of \$1,116.
- Expenditures for months 13 to 24 following engagement were \$788, or 31 percent lower than the forecasted amount of \$1,146.
- Expenditures for months 25 to 36 following engagement were \$741, or 36 percent lower than the forecasted amount of \$1,163.

**Exhibit 2-105 – Participants with Hypertension as Most Expensive Diagnosis
Total PMPM Medical Expenditures**



Tier 1 participants experienced significant decreases in expenditures across all major categories of service, excluding behavioral health. Tier 2 participants experienced decreases in hospital and physician services, enough to offset increases in other categories of service (see exhibit 2-106).

**Exhibit 2-106 – Participants with Hypertension as Most Expensive Diagnosis
PMPM Expenditures by Category of Service**

Category of Service	Tier 1			Tier 2		
	Pre-Engagement: 1-12 months	First 12 months of Engagement	Percent Change	Pre-Engagement: 1-12 months	First 12 months of Engagement	Percent Change
Inpatient Hospital	\$1,049	\$702	-33.1%	\$284	\$248	-12.7%
Outpatient Hospital	\$290	\$249	-14.2%	\$129	\$115	-11.5%
Physician	\$558	\$379	-32.1%	\$211	\$194	-8.2%
Behavioral Health (Psych.)	\$47	\$58	23.8%	\$22	\$27	22.2%
Pharmacy	\$340	\$300	-11.8%	\$172	\$184	7.1%
All Other	\$268	\$253	-5.7%	\$99	\$112	12.5%
Total	\$2,552	\$1,940	-24.0%	\$918	\$879	-4.2%

Total Medical Expenditure Impact of Nurse Care Management

Overall, medical expenditure savings attributable to nurse care management for persons with hypertension across both tiers were \$273 PMPM during the first 12 months following engagement, \$439 PMPM for months 13 to 24 and \$537 PMPM for months 25 to 36 (see exhibit 2-107).

***Exhibit 2-107 – Participants with Hypertension as Most Expensive Diagnosis
Forecast versus Actual PMPM Medical Expenditures***

Enrollment Group	Engaged Period / Post-Engagement								
	1 to 12 months			13 to 24 months			25 to 36 months		
	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)
Tier 1	\$2,367	\$1,940	82%	\$2,357	\$1,522	65%	\$2,442	\$1,362	56%
Tier 2	\$1,116	\$879	79%	\$1,146	\$788	69%	\$1,163	\$741	64%
Tiers 1 & 2	\$1,331	\$1,058	79%	\$1,350	\$912	68%	\$1,386	\$849	61%

Cerebrovascular Accident Population Utilization and Expenditures Trends

The SoonerCare HMP through SFY 2012 engaged 348 Tier 1 and 654 Tier 2 participants with a cerebrovascular accident diagnosis. Cerebrovascular accident was the most expensive diagnosis at the time of engagement for approximately seven percent of Tier 1 and 10 percent of Tier 2 participants with this diagnosis (see exhibit 2-108). (Because of the relatively small number of cases, all findings should be interpreted with caution.)

Exhibit 2-108 – Participants with Cerebrovascular Accident as Most Expensive Diagnosis

Enrollment Group	Participants with Diagnosis	Most Expensive Diagnosis	Percent Most Expensive
Tier 1	348	23	7%
Tier 2	654	66	10%
Tiers 1 & 2	1,002	89	9%

Over 98 percent of participants with a cerebrovascular accident diagnosis also were diagnosed with another Chronic Impact condition, the most common being hypertension and depression (see exhibit 2-109).

Exhibit 2-109 – Participants with Cerebrovascular Accident Co-morbidity with Chronic Impact Conditions

Comorbidity	Participants	%
Cerebrovascular Accident	1,002	100.0%
	16	1.6%
+ Hypertension	881	87.9%
	5	0.5%
+ Depression	640	63.9%
	1	0.1%
+ Hyperlipidemia	597	59.6%
	2	0.2%
+ Coronary Artery Disease	557	55.6%
	1	0.1%
+ COPD	544	54.3%
	1	0.1%

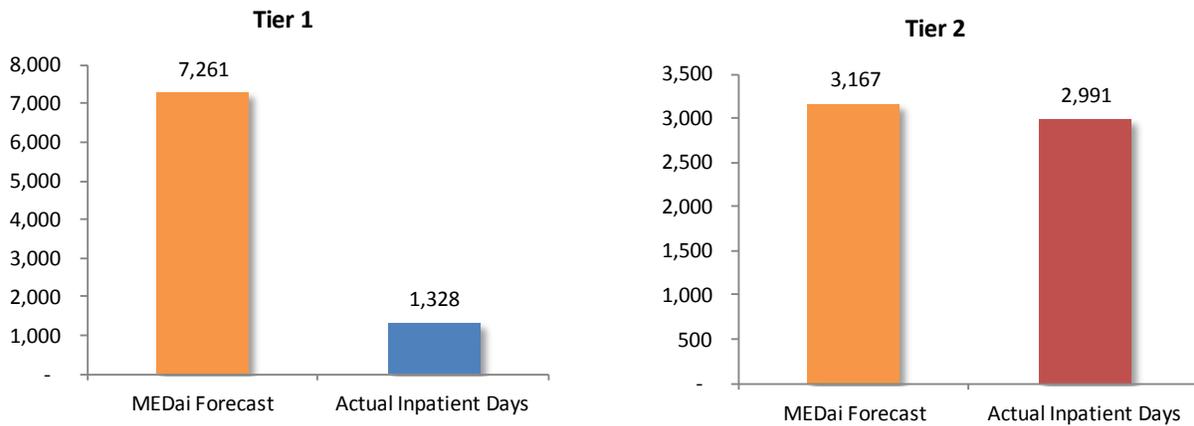
Participants with cerebrovascular accident, the specified comorbidity, and additional comorbidities

Participants ONLY with cerebrovascular accident and the specified comorbidity (no other comorbidities)

Utilization

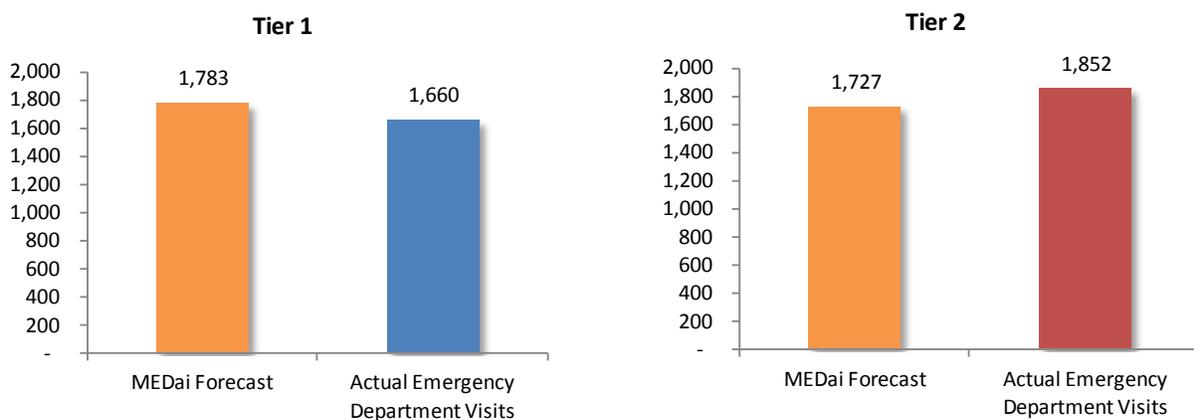
MEDai forecasted that Tier 1 participants would accrue 7,261 inpatient days per 1,000 participants in the first 12 months following engagement. The actual rate was 1,328, or 18 percent of forecast. Tier 2 participants accumulated 2,991 inpatient days, or 95 percent of forecast (see exhibit 2-110).

**Exhibit 2-110 – Participants with Cerebrovascular Accident as Most Expensive Diagnosis
Inpatient Utilization - First 12 Months Following Engagement, per 1,000 Participants**



For Tier 1 participants, MEDai forecasted an emergency department visit rate of 1,783 per 1,000 participants. The actual rate was 1,660, or 93 percent of forecast. Tier 2 participants were forecasted to visit the emergency department 1,727 times per 1,000 participants, while the actual rate was 1,852, or seven percent above forecast (see exhibit 2-111).

**Exhibit 2-111 – Participants with Cerebrovascular Accident as Most Expensive Diagnosis
Emergency Department Utilization - First 12 Months Following Engagement, per 1,000 Participants**



Medical Expenditures – Total and by Category of Service

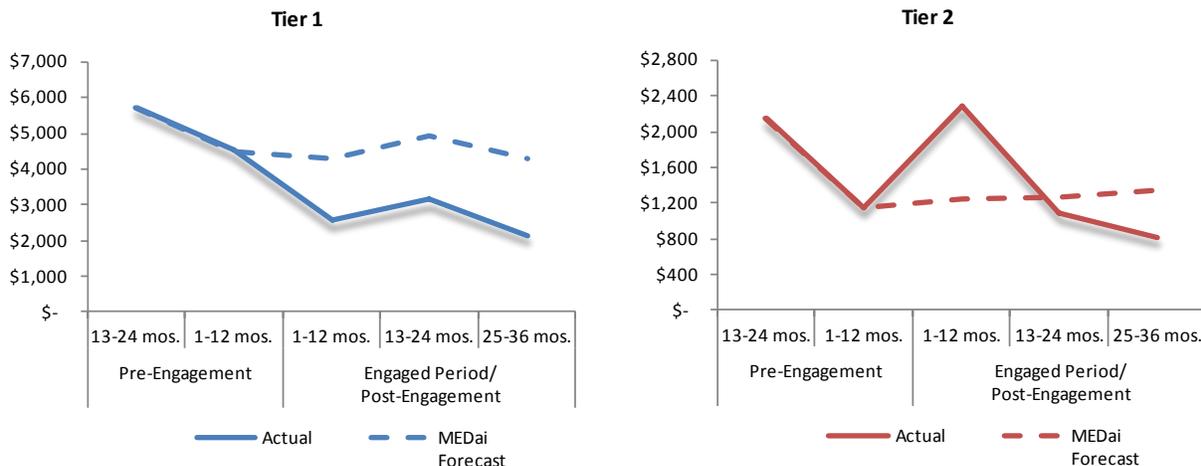
Total PMPM medical expenditures for Tier 1 participants were consistently well below forecast (see exhibit 2-112):

- Expenditures for months 1 to 12 following engagement were \$2,554, or 41 percent lower than the forecasted amount of \$4,299.
- Expenditures for months 13 to 24 following engagement were \$3,120, or 37 percent lower than the forecasted amount of \$4,942.
- Expenditures for months 25 to 36 following engagement were \$2,158, or 50 percent lower than the forecasted amount of \$4,281.

Total PMPM medical expenditures for Tier 2 participants were above forecast for the first 12 months following engagement before dropping below forecast in months 13 to 36.

- Expenditures for months 1 to 12 following engagement were \$2294, or 85 percent higher than the forecasted amount of \$1,240.
- Expenditures for months 13 to 24 following engagement were \$1,092, or 13 percent lower than the forecasted amount of \$1,262.
- Expenditures for months 25 to 36 following engagement were \$832, or 38 percent lower than the forecasted amount of \$1,351.

**Exhibit 2-112 – Participants with Cerebrovascular Accident as Most Expensive Diagnosis
Total PMPM Expenditures**



Tier 1 participants saw significant decreases in hospital and physician expenditures from pre- to post-engagement, while Tier 2 participants saw significant increases (see exhibit 2-113).

**Exhibit 2-113 – Participants with Cerebrovascular Accident as Most Expensive Diagnosis
PMPM Expenditures by Category of Service**

Category of Service	Tier 1			Tier 2		
	Pre-Engagement: 1-12 months	First 12 months of Engagement	Percent Change	Pre-Engagement: 1-12 months	First 12 months of Engagement	Percent Change
Inpatient Hospital	\$2,077	\$499	-76.0%	\$380	\$1,263	232.6%
Outpatient Hospital	\$277	\$152	-45.0%	\$128	\$137	6.9%
Physician	\$610	\$224	-63.3%	\$218	\$364	66.9%
Behavioral Health (Psych.)	\$10	\$32	220.0%	\$20	\$11	-45.9%
Pharmacy	\$143	\$280	95.8%	\$163	\$189	16.0%
All Other	\$1,393	\$1,366	-2.0%	\$247	\$331	33.8%
Total	\$4,510	\$2,554	-43.4%	\$1,156	\$2,294	98.5%

Total Medical Expenditure Impact of Nurse Care Management

Overall, a deficit of (\$335) PMPM occurred during the first 12 months following engagement for persons with cerebrovascular accident across both tiers, followed by savings of \$613 PMPM for months 13 to 24 and \$973 PMPM for months 25 to 36 (see exhibit 2-114).

***Exhibit 2-114 – Participants with Cerebrovascular Accident as Most Expensive Diagnosis
Forecast versus Actual PMPM Medical Expenditures***

Enrollment Group	Engaged Period / Post-Engagement								
	1 to 12 months			13 to 24 months			25 to 36 months		
	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)
Tier 1	\$4,299	\$2,554	59%	\$4,942	\$3,120	63%	\$4,281	\$2,158	50%
Tier 2	\$1,240	\$2,294	185%	\$1,262	\$1,092	87%	\$1,351	\$832	62%
Tiers 1 & 2	\$2,030	\$2,365	116%	\$2,305	\$1,693	73%	\$2,236	\$1,263	56%

Depression Population Utilization and Expenditures Trends

The SoonerCare HMP through SFY 2012 engaged 2,098 Tier 1 and 7,616 Tier 2 participants with a depression diagnosis. Depression was the most expensive diagnosis at the time of engagement for approximately 26 percent of Tier 1 and 33 percent of Tier 2 participants with this diagnosis (see exhibit 2-115).

Exhibit 2-115 – Participants with Depression as Most Expensive Diagnosis

Enrollment Group	Participants with Diagnosis	Most Expensive Diagnosis	Percent Most Expensive
Tier 1	2,098	549	26%
Tier 2	7,616	2,493	33%
Tiers 1 & 2	9,714	3,042	31%

Nearly 98 percent of participants with depression also were diagnosed with another Chronic Impact condition, the most common being hypertension and lower back pain (see exhibit 2-116).

Exhibit 2-116 – Participants with Depression Co-morbidity with Chronic Impact Conditions

Comorbidity	Participants	%
Depression	9,714	100.0%
	211	2.2%
+ Hypertension	6,851	70.5%
	25	0.3%
+ Lower Back Pain	5,853	60.3%
	85	0.9%
+ Behavioral Health Disorder	5,343	55.0%
	42	0.4%
+ COPD	4,607	47.4%
	11	0.1%
+ Diabetes	4,405	45.3%
	6	0.1%

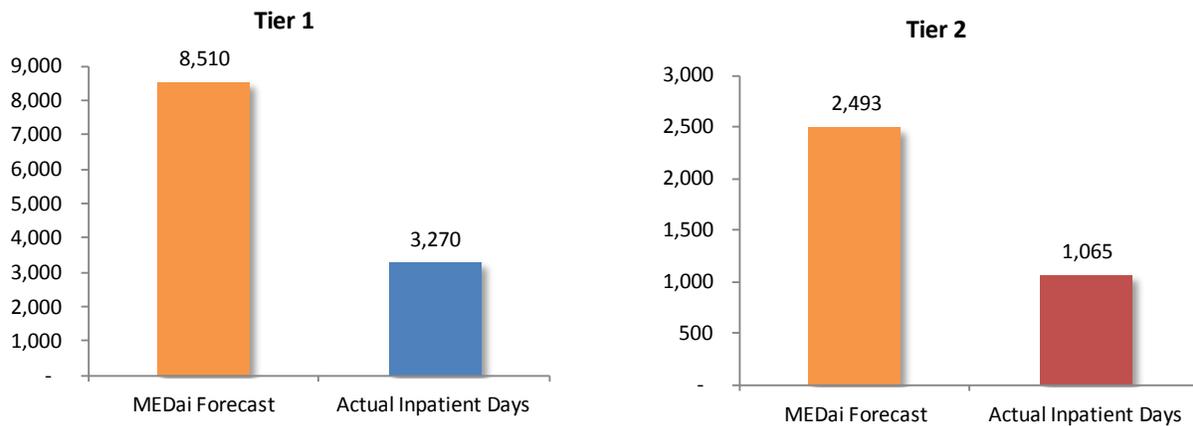
Participants with depression, the specified comorbidity, and additional comorbidities

Participants ONLY with depression and the specified comorbidity (no other comorbidities)

Utilization

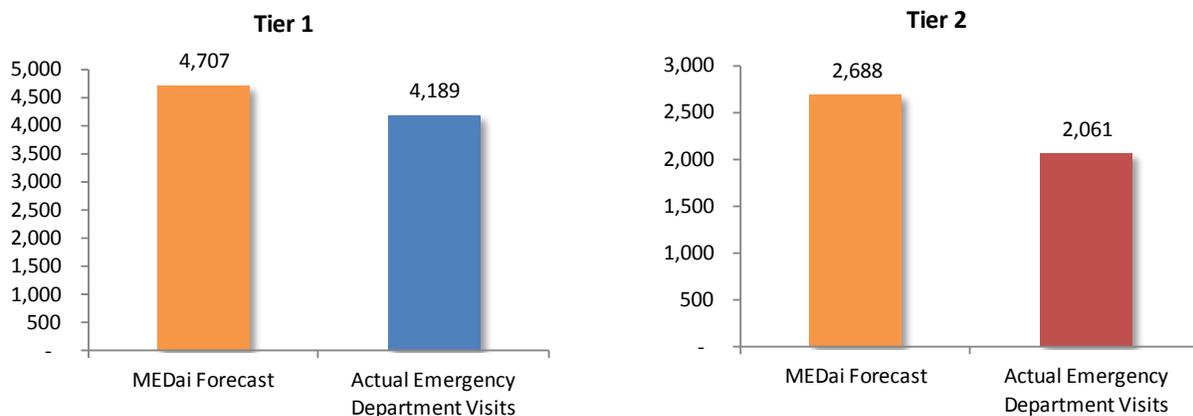
MEDai forecasted that Tier 1 participants would accrue 8,510 inpatient days per 1,000 participants in the first 12 months following engagement. The actual rate was 3,270, or 38 percent of forecast. Tier 2 participants accumulated 1,065 inpatient days, or 43 percent of forecast (see exhibit 2-117).

**Exhibit 2-117 – Participants with Depression as Most Expensive Diagnosis
Inpatient Utilization - First 12 Months Following Engagement, per 1,000 Participants**



For Tier 1 participants, MEDai forecasted an emergency department visit rate of 4,707 per 1,000 participants. The actual rate was 4,189, or 89 percent of forecast. Tier 2 participants were forecasted to visit the emergency department 2,688 times per 1,000 participants, while the actual rate was 2,061, or 77 percent of forecast (see exhibit 2-118).

**Exhibit 2-118 – Participants with Depression as Most Expensive Diagnosis
Emergency Department Utilization - First 12 Months Following Engagement, per 1,000 Participants**



Medical Expenditures – Total and by Category of Service

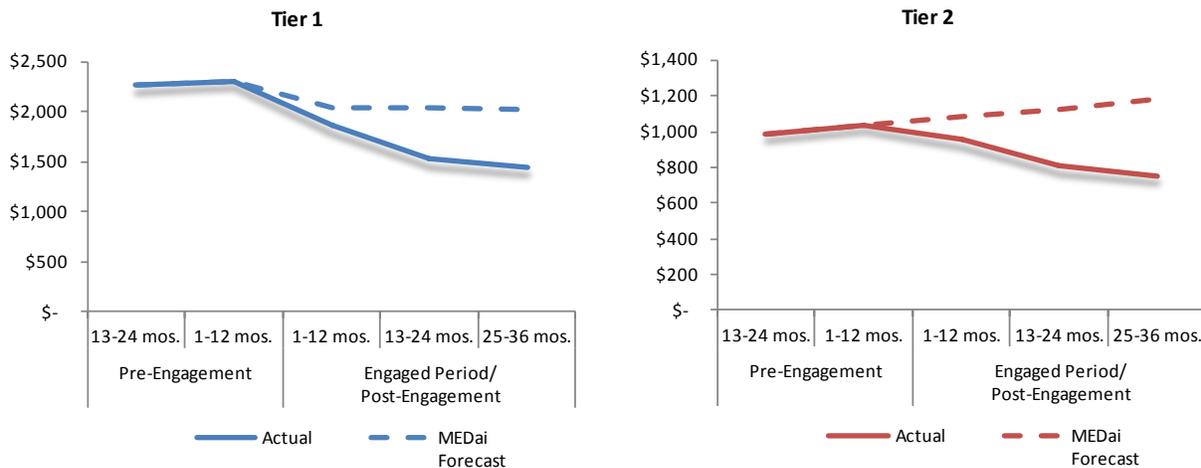
Total PMPM medical expenditures for Tier 1 participants were consistently below forecast, with the gap widening over time (see exhibit 2-119):

- Expenditures for months 1 to 12 following engagement were \$1,853, or nine percent lower than the forecasted amount of \$2,038.
- Expenditures for months 13 to 24 following engagement were \$1,524, or 25 percent lower than the forecasted amount of \$2,040.
- Expenditures for months 25 to 36 following engagement were \$1,448, or 28 percent lower than the forecasted amount of \$2,015.

Total PMPM medical expenditures for Tier 2 participants also were consistently below forecast:

- Expenditures for months 1 to 12 following engagement were \$948, or 13 percent lower than the forecasted amount of \$1,084.
- Expenditures for months 13 to 24 following engagement were \$805, or 28 percent lower than the forecasted amount of \$1,119.
- Expenditures for months 25 to 36 following engagement were \$757, or 36 percent lower than the forecasted amount of \$1,178.

**Exhibit 2-119 – Participants with Depression as Most Expensive Diagnosis
Total PMPM Expenditures**



From pre- to post-engagement, expenditures declined across nearly all major categories of service for both Tier 1 and Tier 2 participants (see exhibit 2-120).

**Exhibit 2-120 – Participants with Depression as Most Expensive Diagnosis
PMPM Expenditures by Category of Service**

Category of Service	Tier 1			Tier 2		
	Pre-Engagement: 1-12 months	First 12 months of Engagement	Percent Change	Pre-Engagement: 1-12 months	First 12 months of Engagement	Percent Change
Inpatient Hospital	\$767	\$525	-31.5%	\$176	\$149	-15.2%
Outpatient Hospital	\$214	\$186	-12.8%	\$128	\$109	-14.7%
Physician	\$421	\$340	-19.3%	\$218	\$188	-13.7%
Behavioral Health (Psych.)	\$320	\$253	-21.1%	\$182	\$172	-5.6%
Pharmacy	\$348	\$310	-11.0%	\$218	\$219	0.4%
All Other	\$237	\$240	0.9%	\$113	\$110	-2.3%
Total	\$2,307	\$1,853	-19.7%	\$1,035	\$948	-8.4%

Total Medical Expenditure Impact of Nurse Care Management

Overall, medical expenditure savings attributable to nurse care management for persons with depression across both tiers were \$145 PMPM during the first 12 months following engagement, \$350 PMPM for months 13 to 24 and \$443 PMPM for months 25 to 36 (see exhibit 2-121).

***Exhibit 2-121 – Participants with Depression as Most Expensive Diagnosis
Forecast versus Actual PMPM Medical Expenditures***

Enrollment Group	Engaged Period / Post-Engagement								
	1 to 12 months			13 to 24 months			25 to 36 months		
	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)
Tier 1	\$2,038	\$1,853	91%	\$2,040	\$1,524	75%	\$2,015	\$1,448	72%
Tier 2	\$1,084	\$948	87%	\$1,119	\$805	72%	\$1,178	\$757	64%
Tiers 1 & 2	\$1,256	\$1,110	88%	\$1,284	\$934	73%	\$1,333	\$890	67%

HIV Population Utilization and Expenditures Trends

The SoonerCare HMP through SFY 2012 engaged 19 Tier 1 and 71 Tier 2 participants with an HIV diagnosis. HIV was the most expensive diagnosis at the time of engagement for approximately 16 percent of Tier 1 and 17 percent of Tier 2 participants with this diagnosis (see exhibit 2-122).

Exhibit 2-122 – Participants with HIV as Most Expensive Diagnosis

Enrollment Group	Participants with Diagnosis	Most Expensive Diagnosis	Percent Most Expensive
Tier 1	19	3	16%
Tier 2	71	12	17%
Tiers 1 & 2	90	15	17%

All but two participants with HIV also were diagnosed with another Chronic Impact condition, the most common being hypertension and depression (see exhibit 2-123).

Exhibit 2-123 – Participants with HIV Co-morbidity with Chronic Impact Conditions

Comorbidity	Participants	%
HIV	90	100.0%
	2	2.2%
+ Hypertension	68	75.6%
	0	0.0%
+ Depression	64	71.1%
	0	0.0%
+ Diabetes	54	60.0%
	1	1.1%
+ Lower Back Pain	52	57.8%
	0	0.0%
+ Congestive Heart Failure	47	52.2%
	0	0.0%

Participants with HIV, the specified comorbidity, and additional comorbidities

Participants ONLY with HIV and the specified comorbidity (no other comorbidities)

The small number of participants having HIV as their most expensive diagnosis precluded further analysis of the group’s utilization and expenditure trends. However, these individuals were included in the overall cost effectiveness analysis presented later in the report.

Hyperlipidemia Population Utilization and Expenditures Trends

The SoonerCare HMP through SFY 2012 engaged 1,600 Tier 1 and 5,659 Tier 2 participants with a hyperlipidemia diagnosis. Hyperlipidemia was the most expensive diagnosis at the time of engagement for approximately three percent of Tier 1 and five percent of Tier 2 participants with this diagnosis (see exhibit 2-124).

Exhibit 2-124 – Participants with Hyperlipidemia as Most Expensive Diagnosis

Enrollment Group	Participants with Diagnosis	Most Expensive Diagnosis	Percent Most Expensive
Tier 1	1,600	54	3%
Tier 2	5,659	297	5%
Tiers 1 & 2	7,259	351	5%

Over 99 percent of participants with hyperlipidemia also were diagnosed with another Chronic Impact condition, the most common being hypertension and diabetes (see exhibit 2-125).

Exhibit 2-125 – Participants with Hyperlipidemia Co-morbidity with Chronic Impact Conditions

Comorbidity	Participants	%
Hyperlipidemia	7,259	100.0%
	60	0.8%
+ Hypertension	6,367	87.7%
	22	0.3%
+ Diabetes	4,479	61.7%
	10	0.1%
+ Depression	4,323	59.6%
	4	0.1%
+ Coronary Artery Disease	3,995	55.0%
	7	0.1%
+ COPD	3,669	50.5%
	4	0.1%

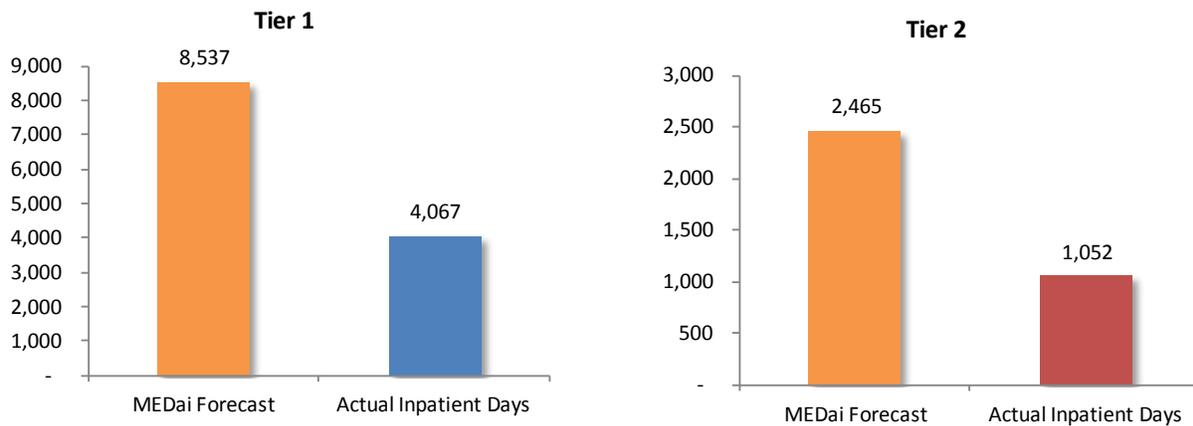
Participants with hyperlipidemia, the specified comorbidity, and additional comorbidities

Participants ONLY with hyperlipidemia and the specified comorbidity (no other comorbidities)

Utilization

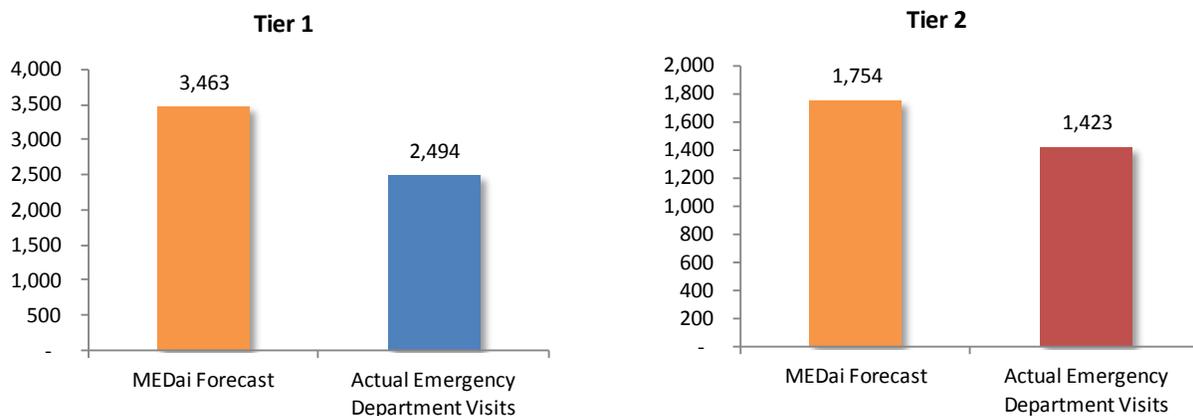
MEDai forecasted that Tier 1 participants would accrue 8,537 inpatient days per 1,000 participants in the first 12 months following engagement. The actual rate was 4,067, or 48 percent of forecast. Tier 2 participants accumulated 1,052 inpatient days, or 43 percent of forecast (see exhibit 2-126).

**Exhibit 2-126 – Participants with Hyperlipidemia as Most Expensive Diagnosis
Inpatient Utilization - First 12 Months Following Engagement, per 1,000 Participants**



For Tier 1 participants, MEDai forecasted an emergency department visit rate of 3,463 per 1,000 participants. The actual rate was 2,494, or 72 percent of forecast. Tier 2 participants were forecasted to visit the emergency department 1,754 times per 1,000 participants, while the actual rate was 1,423, or 81 percent of forecast (see exhibit 2-127).

**Exhibit 2-127 – Participants with Hyperlipidemia as Most Expensive Diagnosis
Emergency Department Utilization - First 12 Months Following Engagement, per 1,000 Participants**



Medical Expenditures – Total and by Category of Service

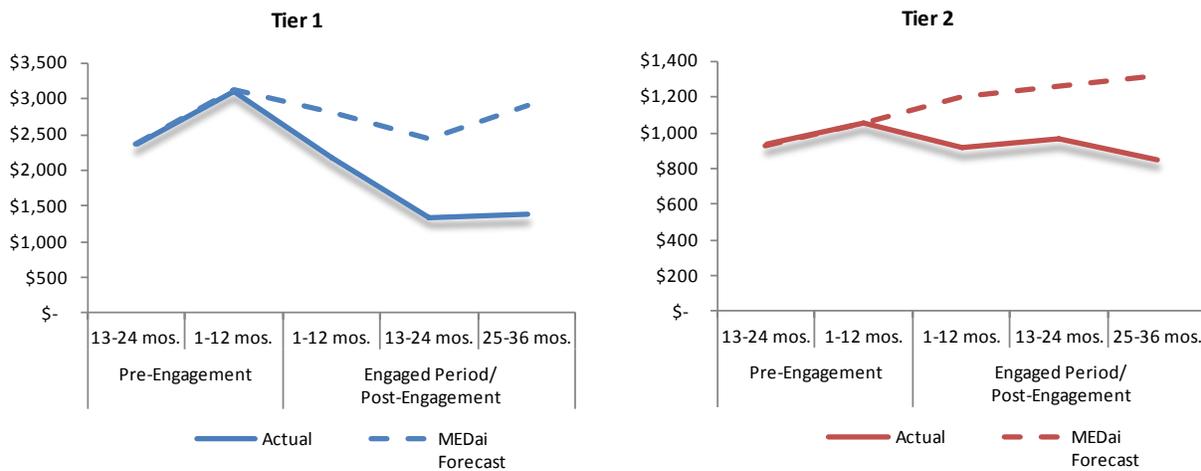
Total PMPM medical expenditures for Tier 1 participants were consistently below forecast, with the gap widening over time (see exhibit 2-128):

- Expenditures for months 1 to 12 following engagement were \$2,175, or 23 percent lower than the forecasted amount of \$2,816.
- Expenditures for months 13 to 24 following engagement were \$1,357, or 44 percent lower than the forecasted amount of \$2,440.
- Expenditures for months 25 to 36 following engagement were \$1,392, or 52 percent lower than the forecasted amount of \$2,915.

Total PMPM medical expenditures for Tier 2 participants also were consistently below forecast:

- Expenditures for months 1 to 12 following engagement were \$910, or 24 percent lower than the forecasted amount of \$1,204.
- Expenditures for months 13 to 24 following engagement were \$961, or 23 percent lower than the forecasted amount of \$1,256.
- Expenditures for months 25 to 36 following engagement were \$851, or 36 percent lower than the forecasted amount of \$1,321.

**Exhibit 2-128 – Participants with Hyperlipidemia as Most Expensive Diagnosis
Total PMPM Expenditures**



Both Tier 1 and Tier 2 participants saw significant decreases in expenditures in hospital and physician categories of service from pre- to post-engagement (see exhibit 2-129); savings for Tier 1 were slightly offset by increases in pharmacy and other minor categories of service.

***Exhibit 2-129 – Participants with Hyperlipidemia as Most Expensive Diagnosis
PMPM Expenditures by Category of Service***

Category of Service	Tier 1			Tier 2		
	Pre-Engagement: 1-12 months	First 12 months of Engagement	Percent Change	Pre-Engagement: 1-12 months	First 12 months of Engagement	Percent Change
Inpatient Hospital	\$1,746	\$1,088	-37.7%	\$337	\$254	-24.6%
Outpatient Hospital	\$321	\$156	-51.4%	\$157	\$109	-30.6%
Physician	\$590	\$299	-49.4%	\$226	\$193	-14.8%
Behavioral Health (Psych.)	\$21	\$18	-17.5%	\$24	\$32	34.5%
Pharmacy	\$248	\$311	25.4%	\$215	\$211	-1.9%
All Other	\$188	\$303	61.4%	\$97	\$111	14.3%
Total	\$3,115	\$2,175	-30.2%	\$1,056	\$910	-13.9%

Total Medical Expenditure Impact of Nurse Care Management

Overall, medical expenditure savings attributable to nurse care management for persons with hyperlipidemia across both tiers were \$363 PMPM during the first 12 months following engagement, \$390 PMPM for months 13 to 24 and \$580 PMPM for months 25 to 36 (see exhibit 2-130).

***Exhibit 2-130 – Participants with Hyperlipidemia as Most Expensive Diagnosis
Forecast versus Actual PMPM Medical Expenditures***

Enrollment Group	Engaged Period / Post-Engagement								
	1 to 12 months			13 to 24 months			25 to 36 months		
	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)
Tier 1	\$2,816	\$2,175	77%	\$2,440	\$1,357	56%	\$2,915	\$1,392	48%
Tier 2	\$1,204	\$910	76%	\$1,256	\$961	77%	\$1,321	\$851	64%
Tiers 1 & 2	\$1,452	\$1,089	75%	\$1,403	\$1,012	72%	\$1,494	\$914	61%

Lower Back Pain Population Utilization and Expenditures Trends

The SoonerCare HMP through SFY 2012 engaged 1,599 Tier 1 and 6,312 Tier 2 participants with lower back pain. Lower back pain was the most expensive diagnosis at the time of engagement for approximately four percent of Tier 1 and 13 percent of Tier 2 participants with this diagnosis (see exhibit 2-131).

Exhibit 2-131 – Participants with Lower Back Pain as Most Expensive Diagnosis

Enrollment Group	Participants with Diagnosis	Most Expensive Diagnosis	Percent Most Expensive
Tier 1	1,599	71	4%
Tier 2	6,312	833	13%
Tiers 1 & 2	7,911	904	11%

Ninety-eight percent of participants with lower back pain also were diagnosed with another Chronic Impact condition, the most common being hypertension and depression (see exhibit 2-132).

Exhibit 2-132 – Participants with Lower Back Pain Co-morbidity with Chronic Impact Conditions

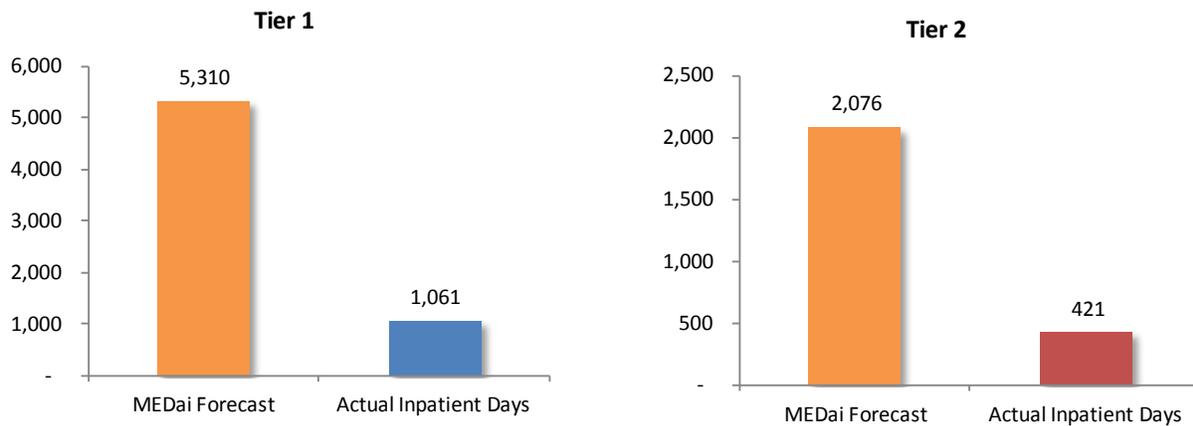
Comorbidity	Participants	%
Lower Back Pain	7,911	100.0%
	159	2.0%
+ Hypertension	5,958	75.3%
	42	0.5%
+ Depression	5,351	67.6%
	38	0.5%
+ COPD	4,157	52.5%
	21	0.3%
+ Diabetes	3,911	49.4%
	10	0.1%
+ Hyperlipidemia	3,755	47.5%
	8	0.1%

- Participants with lower back pain, the specified comorbidity, and additional comorbidities
- Participants ONLY with lower back pain and the specified comorbidity (no other comorbidities)

Utilization

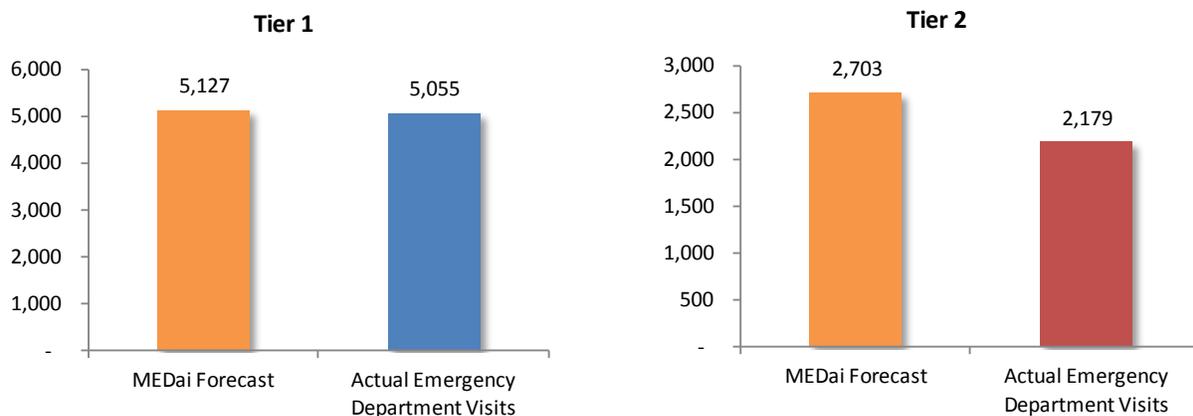
MEDai forecasted that Tier 1 participants would accrue 5,310 inpatient days per 1,000 participants in the first 12 months following engagement. The actual rate was 1,061, or 20 percent of forecast. Tier 2 participants accumulated 421 inpatient days, or 20 percent of forecast (see exhibit 2-133).

**Exhibit 2-133 – Participants with Lower Back Pain as Most Expensive Diagnosis
Inpatient Utilization - First 12 Months Following Engagement, per 1,000 Participants**



For Tier 1 participants, MEDai forecasted an emergency department visit rate of 5,127 per 1,000 participants. The actual rate was 5,055, or one percent below forecast. Tier 2 participants were forecasted to visit the emergency department 2,703 times per 1,000 participants, while the actual rate was 2,179, or 81 percent of forecast (see exhibit 2-134).

**Exhibit 2-134 – Participants with Lower Back Pain as Most Expensive Diagnosis
Emergency Department Utilization - First 12 Months Following Engagement, per 1,000 Participants**



Medical Expenditures – Total and by Category of Service

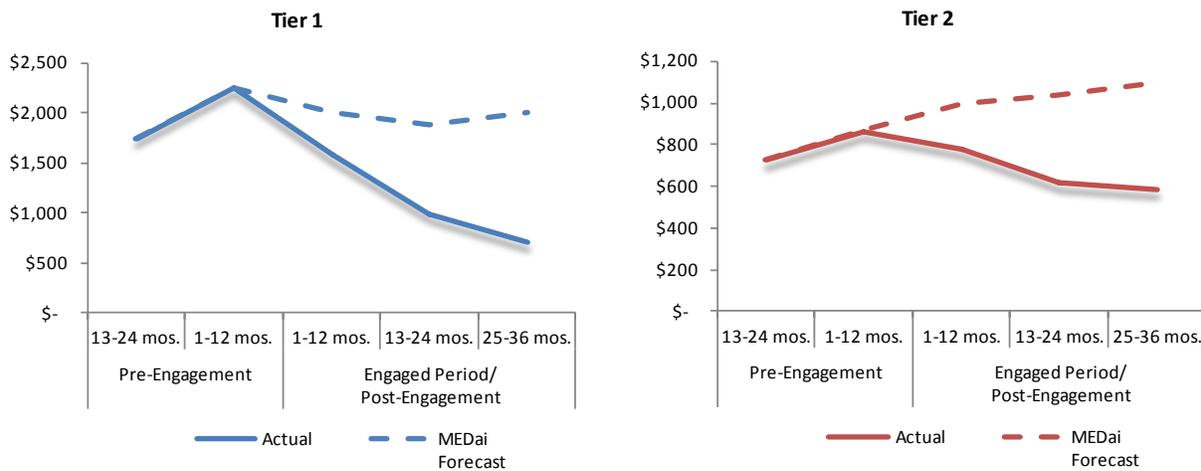
Total PMPM medical expenditures for Tier 1 participants were consistently below forecast, with the gap widening over time (see exhibit 2-135):

- Expenditures for months 1 to 12 following engagement were \$1,579, or 21 percent lower than the forecasted amount of \$2,010.
- Expenditures for months 13 to 24 following engagement were \$993, or 47 percent lower than the forecasted amount of \$1,884.
- Expenditures for months 25 to 36 following engagement were \$710, or 65 percent lower than the forecasted amount of \$2,012.

Total PMPM medical expenditures for Tier 2 participants also were consistently below forecast:

- Expenditures for months 1 to 12 following engagement were \$781, or 22 percent lower than the forecasted amount of \$1,000.
- Expenditures for months 13 to 24 following engagement were \$619, or 40 percent lower than the forecasted amount of \$1,037.
- Expenditures for months 25 to 36 following engagement were \$588, or 46 percent lower than the forecasted amount of \$1,097.

**Exhibit 2-135 – Participants with Lower Back Pain as Most Expensive Diagnosis
Total PMPM Expenditures**



Both Tier 1 and Tier 2 participants saw modest to significant decreases in expenditures from pre- to post-engagement for hospital and physician services, though decreases were more pronounced for Tier 1 participants, who also saw decreases in behavioral health service utilization (see exhibit 2-136).

***Exhibit 2-136 – Participants with Lower Back Pain as Most Expensive Diagnosis
PMPM Expenditures by Category of Service***

Category of Service	Tier 1			Tier 2		
	Pre-Engagement: 1-12 months	First 12 months of Engagement	Percent Change	Pre-Engagement: 1-12 months	First 12 months of Engagement	Percent Change
Inpatient Hospital	\$854	\$314	-63.3%	\$195	\$125	-36.0%
Outpatient Hospital	\$256	\$230	-10.2%	\$144	\$128	-11.2%
Physician	\$511	\$391	-23.4%	\$223	\$195	-12.2%
Behavioral Health (Psych.)	\$71	\$25	-64.9%	\$26	\$30	15.8%
Pharmacy	\$346	\$395	14.2%	\$181	\$208	14.8%
All Other	\$217	\$224	2.9%	\$98	\$96	-2.0%
Total	\$2,256	\$1,579	-30.0%	\$866	\$781	-9.8%

Total Medical Expenditure Impact of Nurse Care Management

Overall, medical expenditure savings attributable to nurse care management for persons with lower back pain across both tiers were \$236 PMPM during the first 12 months following engagement, \$454 PMPM for months 13 to 24 and \$572 PMPM for months 25 to 36 (see exhibit 2-137).

***Exhibit 2-137 – Participants with Lower Back Pain as Most Expensive Diagnosis
Forecast versus Actual PMPM Medical Expenditures***

Enrollment Group	Engaged Period / Post-Engagement								
	1 to 12 months			13 to 24 months			25 to 36 months		
	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)
Tier 1	\$2,010	\$1,579	79%	\$1,884	\$993	53%	\$2,012	\$710	35%
Tier 2	\$1,000	\$781	78%	\$1,037	\$619	60%	\$1,097	\$588	54%
Tiers 1 & 2	\$1,079	\$843	78%	\$1,102	\$648	59%	\$1,170	\$598	51%

Migraine Headache Population Utilization and Expenditures Trends

The SoonerCare HMP through SFY 2012 engaged 589 Tier 1 and 2,187 Tier 2 participants with migraine headaches. Migraine headache was the most expensive diagnosis at the time of engagement for approximately six percent of Tier 1 and 14 percent of Tier 2 participants with this diagnosis (see exhibit 2-138).

Exhibit 2-138 – Participants with Migraine Headache as Most Expensive Diagnosis

Enrollment Group	Participants with Diagnosis	Most Expensive Diagnosis	Percent Most Expensive
Tier 1	589	38	6%
Tier 2	2,187	311	14%
Tiers 1 & 2	2,776	349	13%

Nearly 99 percent of participants with migraine headaches also suffered from another Chronic Impact condition, the most common being hypertension and depression (see exhibit 2-139).

Exhibit 2-139 – Participants with Migraine Headache Co-morbidity with Chronic Impact Conditions

Comorbidity	Participants	%
Migraine Headaches	2,776	100.0%
	36	1.3%
+ Hypertension	2,067	74.5%
	5	0.2%
+ Depression	1,851	66.7%
	6	0.2%
+ Lower Back Pain	1,679	60.5%
	4	0.1%
+ Behavioral Health Disorder	1,556	56.1%
	7	0.3%
+ Diabetes	1,267	45.6%
	6	0.2%

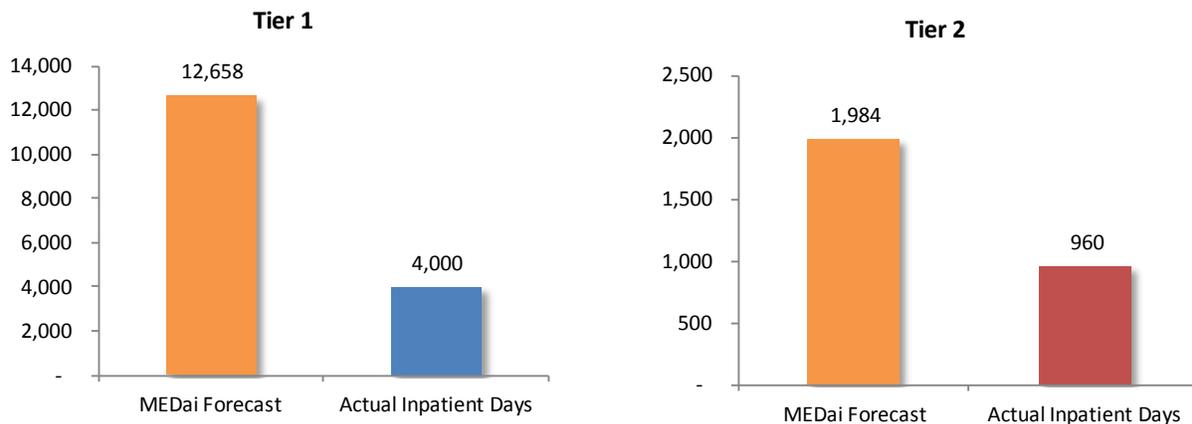
Participants with migraine headaches, the specified comorbidity, and additional comorbidities

Participants ONLY with migraine headaches and the specified comorbidity (no other comorbidities)

Utilization

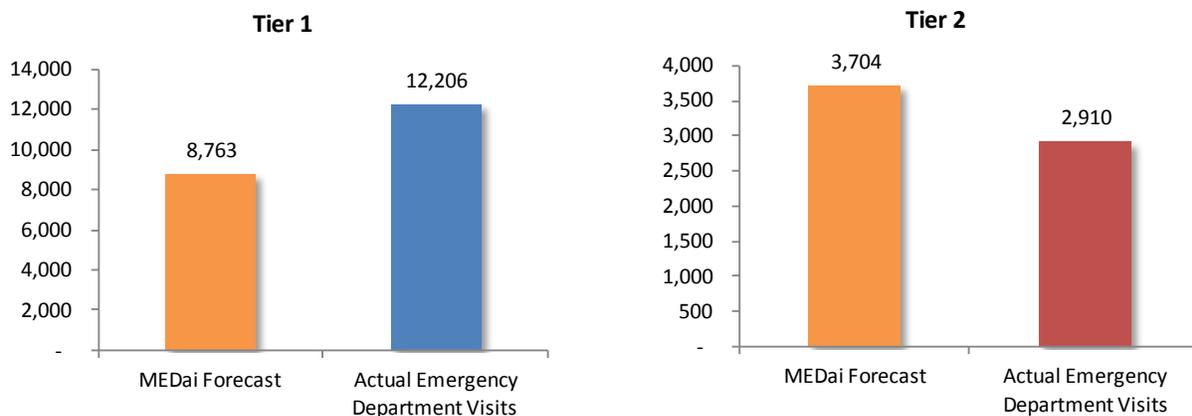
MEDai forecasted that Tier 1 participants would accrue 12,658 inpatient days per 1,000 participants in the first 12 months following engagement. The actual rate was 4,000, or 32 percent of forecast. Tier 2 participants accumulated 960 inpatient days, or 48 percent of forecast (see exhibit 2-140).

**Exhibit 2-140 – Participants with Migraine Headache as Most Expensive Diagnosis
Inpatient Utilization - First 12 Months Following Engagement, per 1,000 Participants**



For Tier 1 participants, MEDai forecasted an emergency department visit rate of 8,763 per 1,000 participants. The actual rate was 12,206, or 39 percent above forecast. Tier 2 participants were forecasted to visit the emergency department 3,704 times per 1,000 participants, while the actual rate was 2,910, or 79 percent of forecast (see exhibit 2-141).

**Exhibit 2-141 – Participants with Migraine Headache as Most Expensive Diagnosis
Emergency Department Utilization - First 12 Months Following Engagement, per 1,000
Participants**



Medical Expenditures – Total and by Category of Service

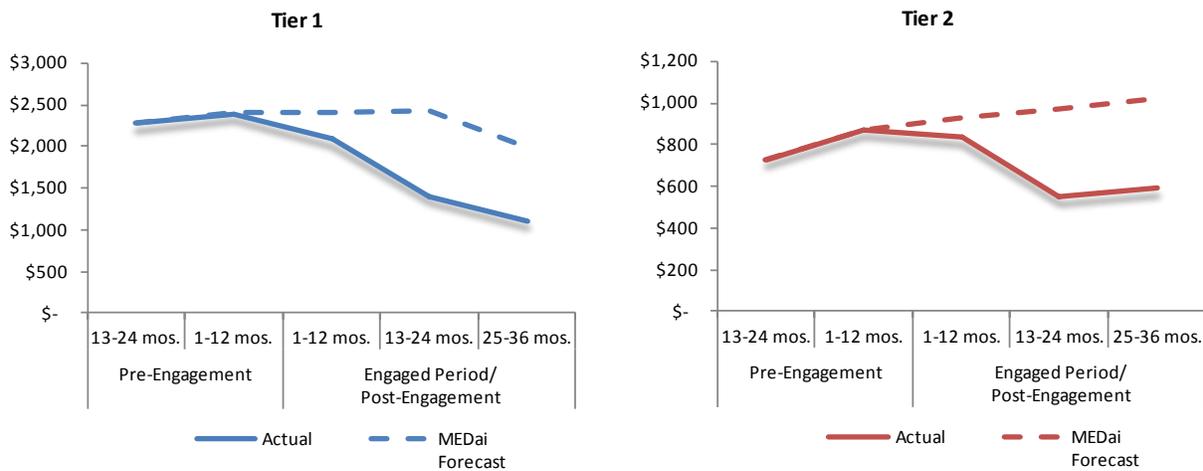
Total PMPM medical expenditures for Tier 1 participants were consistently below forecast, with the gap widening over time (see exhibit 2-142):

- Expenditures for months 1 to 12 following engagement were \$2,087, or 14 percent lower than the forecasted amount of \$2,416.
- Expenditures for months 13 to 24 following engagement were \$1,406, or 42 percent lower than the forecasted amount of \$2,427.
- Expenditures for months 25 to 36 following engagement were \$1,103, or 44 percent lower than the forecasted amount of \$1,978.

Total PMPM medical expenditures for Tier 2 participants also were consistently below forecast:

- Expenditures for months 1 to 12 following engagement were \$835, or 10 percent lower than the forecasted amount of \$92.
- Expenditures for months 13 to 24 following engagement were \$551, or 43 percent lower than the forecasted amount of \$970.
- Expenditures for months 25 to 36 following engagement were \$591, or 42 percent lower than the forecasted amount of \$1,025.

**Exhibit 2-142 – Participants with Migraine Headache as Most Expensive Diagnosis
Total PMPM Expenditures**



Tier 1 participants experienced a significant decrease in inpatient hospital service expenditures and a moderate decline in physician and pharmacy expenditures. Tier 2 participants utilized fewer outpatient hospital, physician, pharmacy and “other” services (see exhibit 2-143).

***Exhibit 2-143 – Participants with Migraine Headache as Most Expensive Diagnosis
PMPM Expenditures by Category of Service***

Category of Service	Tier 1			Tier 2		
	Pre-Engagement: 1-12 months	First 12 months of Engagement	Percent Change	Pre-Engagement: 1-12 months	First 12 months of Engagement	Percent Change
Inpatient Hospital	\$686	\$400	-41.7%	\$161	\$172	6.9%
Outpatient Hospital	\$367	\$373	1.6%	\$170	\$142	-16.4%
Physician	\$544	\$493	-9.4%	\$236	\$206	-12.6%
Behavioral Health (Psych.)	\$25	\$49	96.2%	\$39	\$43	11.3%
Pharmacy	\$338	\$306	-9.5%	\$173	\$171	-0.9%
All Other	\$440	\$467	6.1%	\$95	\$100	5.0%
Total	\$2,400	\$2,087	-13.0%	\$874	\$835	-4.4%

Total Medical Expenditure Impact of Nurse Care Management

Overall, medical expenditure savings attributable to nurse care management for persons with migraine headaches across both tiers were \$110 PMPM during the first 12 months following engagement, \$481 PMPM for months 13 to 24 and \$482 PMPM for months 25 to 36 (see exhibit 2-144).

**Exhibit 2-144 – Participants with Migraine Headache as Most Expensive Diagnosis
Forecast versus Actual PMPM Medical Expenditures**

Enrollment Group	Engaged Period / Post-Engagement								
	1 to 12 months			13 to 24 months			25 to 36 months		
	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)
Tier 1	\$2,416	\$2,087	86%	\$2,427	\$1,406	58%	\$1,978	\$1,103	56%
Tier 2	\$928	\$835	90%	\$970	\$551	57%	\$1,025	\$591	58%
Tiers 1 & 2	\$1,090	\$981	90%	\$1,141	\$661	58%	\$1,153	\$671	58%

Multiple Sclerosis Population Utilization and Expenditures Trends

The SoonerCare HMP through SFY 2012 engaged 85 Tier 1 and 225 Tier 2 participants with multiple sclerosis. Multiple sclerosis was the most expensive diagnosis at the time of engagement for approximately 16 percent of Tier 1 and 24 percent of Tier 2 participants with this diagnosis (see exhibit 2-145). (Because of the relatively small number of cases, all findings should be interpreted with caution.)

Exhibit 2-145 – Participants with Multiple Sclerosis as Most Expensive Diagnosis

Enrollment Group	Participants with Diagnosis	Most Expensive Diagnosis	Percent Most Expensive
Tier 1	85	14	16%
Tier 2	225	55	24%
Tiers 1 & 2	310	69	22%

Nearly 100 percent of participants with multiple sclerosis also suffered from another Chronic Impact condition, the most common being hypertension and depression (see exhibit 2-146).

Exhibit 2-146 – Participants with Multiple Sclerosis Co-morbidity with Chronic Impact Conditions

Comorbidity	Participants	%
Multiple Sclerosis	310	100.0%
	1	0.3%
+ Hypertension	240	77.4%
	1	0.3%
+ Depression	221	71.3%
	0	0.0%
+ Diabetes	169	54.5%
	0	0.0%
+ COPD	151	48.7%
	0	0.0%
+ Lower Back Pain	174	56.1%
	0	0.0%

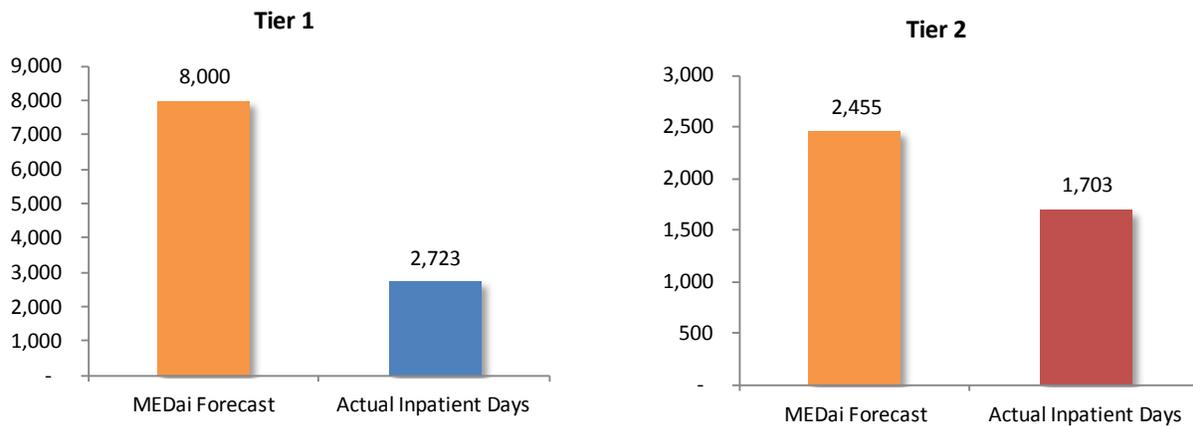
Participants with multiple sclerosis, the specified comorbidity, and additional comorbidities

Participants ONLY with multiple sclerosis and the specified comorbidity (no other comorbidities)

Utilization

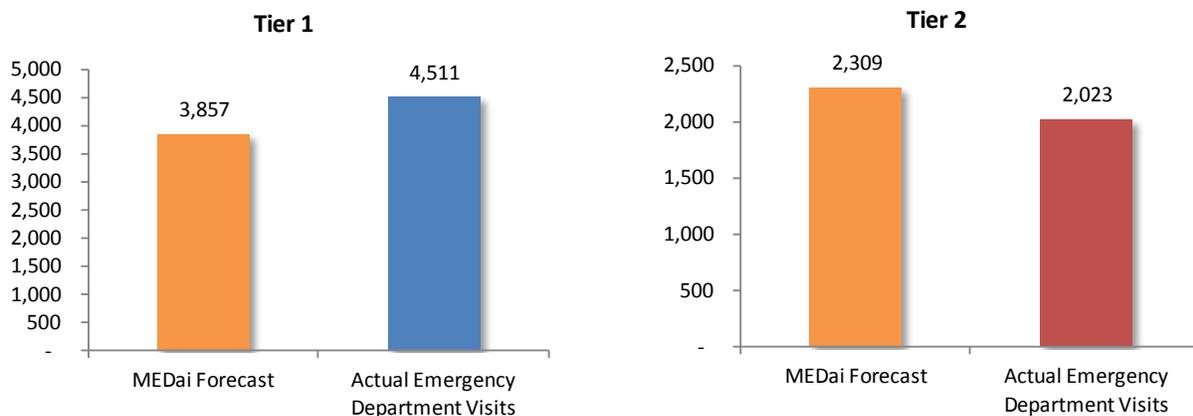
MEDai forecasted that Tier 1 participants would accrue 8,000 inpatient days per 1,000 participants in the first 12 months following engagement. The actual rate was 2,723, or 34 percent of forecast. Tier 2 participants accumulated 1,703 inpatient days, or 69 percent of forecast (see exhibit 2-147).

**Exhibit 2-147 – Participants with Multiple Sclerosis as Most Expensive Diagnosis
Inpatient Utilization - First 12 Months Following Engagement, per 1,000 Participants**



For Tier 1 participants, MEDai forecasted an emergency department visit rate of 3,857 per 1,000 participants. The actual rate was 4,511, or 17 percent above forecast. Tier 2 participants were forecasted to visit the emergency department 2,309 times per 1,000 participants, while the actual rate was 2,023, or 88 percent of forecast (see exhibit 2-148).

**Exhibit 2-148 – Participants with Multiple Sclerosis as Most Expensive Diagnosis
Emergency Department Utilization - First 12 Months Following Engagement, per 1,000 Participants**



Medical Expenditures – Total and by Category of Service

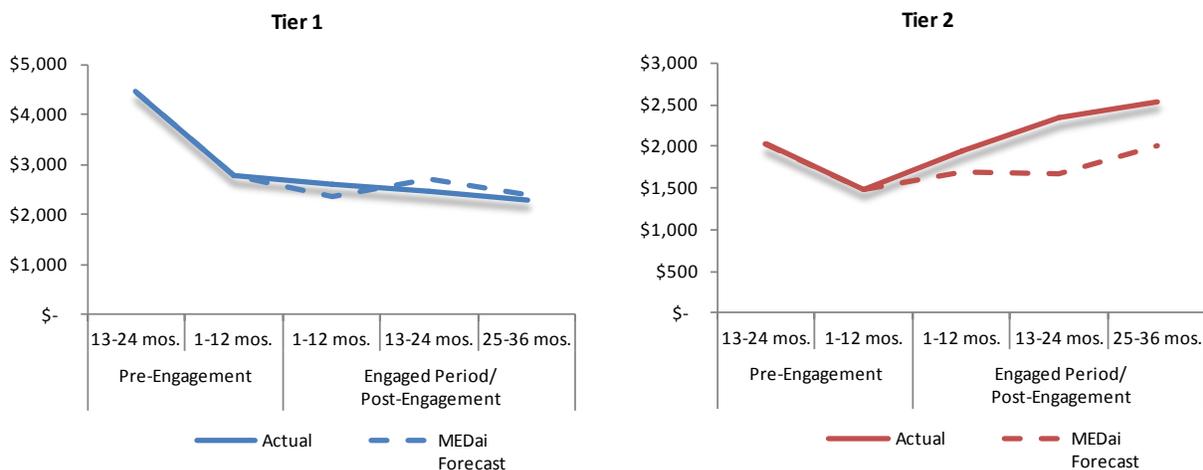
Total PMPM medical expenditures for Tier 1 participants were above forecast for the first 12 months following engagement, before dropping below forecast for months 13 to 36 (see exhibit 2-149):

- Expenditures for months 1 to 12 following engagement were \$2,623, or 10 percent higher than the forecasted amount of \$2,376.
- Expenditures for months 13 to 24 following engagement were \$2,473, or nine percent lower than the forecasted amount of \$2,722.
- Expenditures for months 25 to 36 following engagement were \$2,319, or four percent lower than the forecasted amount of \$2,408.

Total PMPM medical expenditures for Tier 2 participants were consistently above forecast, although the gap narrowed during months 25 to 36 following engagement:

- Expenditures for months 1 to 12 following engagement were \$1,937, or 14 percent higher than the forecasted amount of \$1,698.
- Expenditures for months 13 to 24 following engagement were \$2,327, or 39 percent higher than the forecasted amount of \$1,674.
- Expenditures for months 25 to 36 following engagement were \$2,537, or 26 percent higher than the forecasted amount of \$2,009.

**Exhibit 2-149 – Participants with Multiple Sclerosis as Most Expensive Diagnosis
Total PMPM Expenditures**



Tier 1 participants saw significant decreases across inpatient hospital, outpatient hospital and physician services, which were partly offset by increases in behavioral health and pharmacy expenditures. Tier 2 participants experienced significant increases across all categories of service except outpatient hospital and physician services (see exhibit 2-150).

***Exhibit 2-150 – Participants with Multiple Sclerosis as Most Expensive Diagnosis
PMPM Expenditures by Category of Service***

Category of Service	Tier 1			Tier 2		
	Pre-Engagement: 1-12 months	First 12 months of Engagement	Percent Change	Pre-Engagement: 1-12 months	First 12 months of Engagement	Percent Change
Inpatient Hospital	\$439	\$232	-47.1%	\$52	\$242	362.4%
Outpatient Hospital	\$518	\$351	-32.4%	\$171	\$125	-27.2%
Physician	\$363	\$181	-50.2%	\$189	\$182	-3.7%
Behavioral Health (Psych.)	\$19	\$37	94.9%	\$10	\$27	176.6%
Pharmacy	\$1,285	\$1,693	31.8%	\$972	\$1,214	24.9%
All Other	\$175	\$129	-26.0%	\$93	\$146	55.9%
Total	\$2,799	\$2,623	-6.3%	\$1,488	\$1,937	30.1%

Total Medical Expenditure Impact of Nurse Care Management

Overall, the medical expenditure deficit for persons with multiple sclerosis was (\$232) PMPM during the first 12 months following engagement, (\$486) PMPM for months 13 to 24 and (\$418) PMPM for months 25 to 36 (see exhibit 2-151).

***Exhibit 2-151 – Participants with Multiple Sclerosis as Most Expensive Diagnosis
Forecast versus Actual PMPM Medical Expenditures***

Enrollment Group	Engaged Period / Post-Engagement								
	1 to 12 months			13 to 24 months			25 to 36 months		
	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)
Tier 1	\$2,376	\$2,623	110%	\$2,722	\$2,473	91%	\$2,408	\$2,319	96%
Tier 2	\$1,698	\$1,937	114%	\$1,674	\$2,327	139%	\$2,009	\$2,537	126%
Tiers 1 & 2	\$1,835	\$2,067	113%	\$1,864	\$2,351	126%	\$2,084	\$2,502	120%

Renal Failure Population Utilization and Expenditures Trends

The SoonerCare HMP through SFY 2012 engaged 624 Tier 1 and 853 Tier 2 participants with renal failure. Renal failure was the most expensive diagnosis at the time of engagement for approximately seven percent of Tier 1 and eight percent of Tier 2 participants with this diagnosis (see exhibit 2-152). (Because of the relatively small number of cases, all findings should be interpreted with caution.)

Exhibit 2-152 – Participants with Renal Failure as Most Expensive Diagnosis

Enrollment Group	Participants with Diagnosis	Most Expensive Diagnosis	Percent Most Expensive
Tier 1	624	41	7%
Tier 2	853	64	8%
Tiers 1 & 2	1,477	105	7%

Over 99 percent of participants with renal failure also suffered from another Chronic Impact condition, the most common being hypertension and diabetes (see exhibit 2-153).

Exhibit 2-153 – Participants with Renal Failure Co-morbidity with Chronic Impact Conditions

Comorbidity	Participants	%
Renal Failure	1,477	100.0%
	9	0.6%
+ Hypertension	1,364	92.3%
	3	0.2%
+ Diabetes	982	66.5%
	1	0.1%
+ Depression	870	58.9%
	1	0.1%
+ COPD	912	61.7%
	0	0.0%
+ Coronary Artery Disease	904	61.2%
	0	0.0%

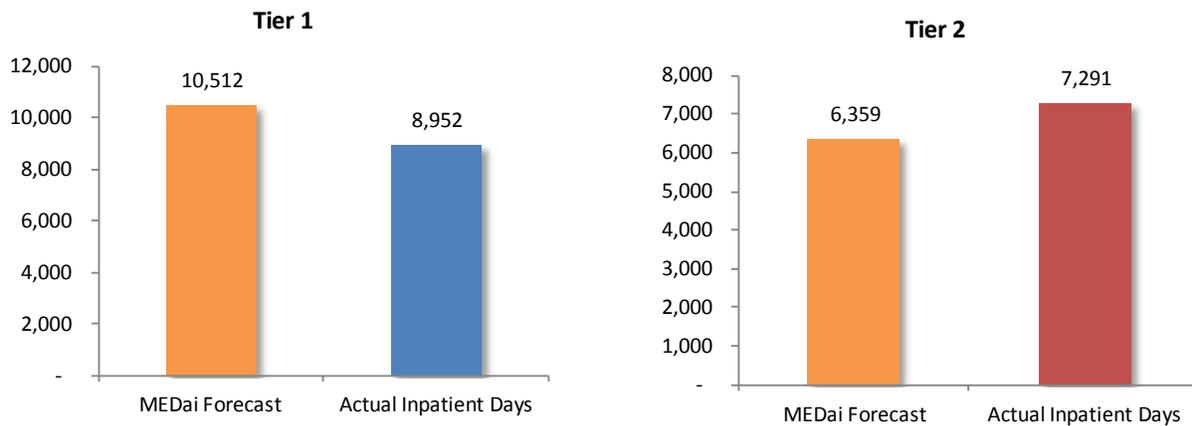
Participants with renal failure, the specified comorbidity, and additional comorbidities

Participants ONLY with renal failure and the specified comorbidity (no other comorbidities)

Utilization

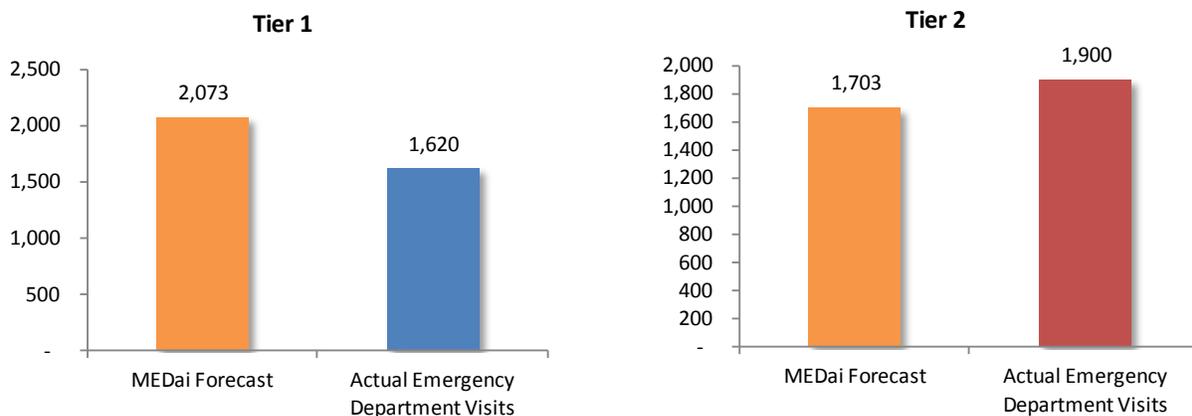
MEDai forecasted that Tier 1 participants would accrue 10,512 inpatient days per 1,000 participants in the first 12 months following engagement. Claims data showed the actual rate was 8,952, or 15 percent below forecast. Tier 2 participants accumulated 7,291 inpatient days, or 15 percent above forecast (see exhibit 2-154).

**Exhibit 2-154 – Participants with Renal Failure as Most Expensive Diagnosis
Inpatient Utilization - First 12 Months Following Engagement, per 1,000 Participants**



For Tier 1 participants, MEDai forecasted an emergency department visit rate of 2,073 per 1,000 participants. The actual rate was 1,620, or 78 percent of forecast. Tier 2 participants were forecasted to visit the emergency department 1,703 times per 1,000 participants, while the actual rate was 1,900, or 12 percent above forecast (see exhibit 2-155).

**Exhibit 2-155 – Participants with Renal Failure as Most Expensive Diagnosis
Emergency Department Utilization - First 12 Months Following Engagement, per 1,000 Participants**



Medical Expenditures – Total and by Category of Service

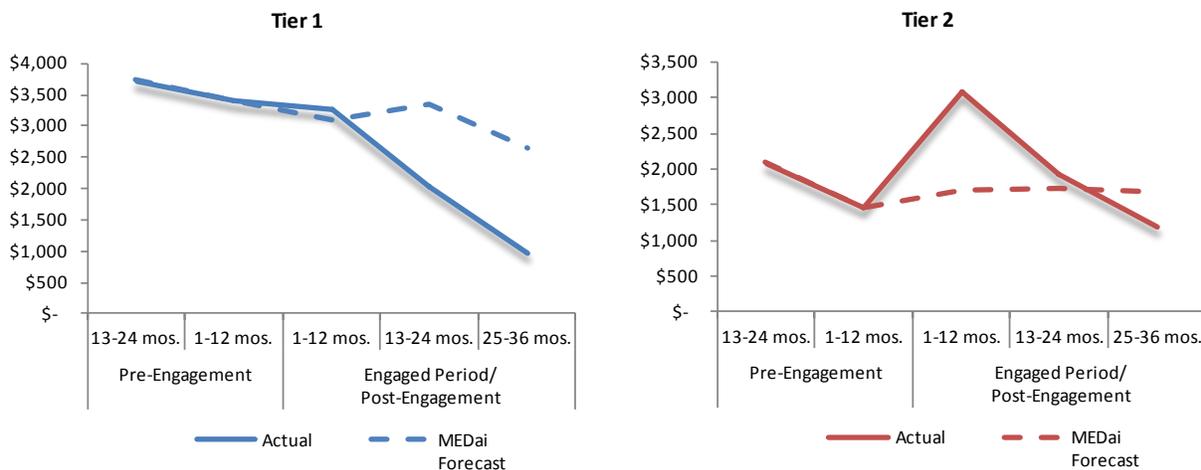
Total PMPM medical expenditures for Tier 1 participants were above forecast for the first 12 months following engagement, before dropping below forecast in months 13 to 36 (see exhibit 2-156):

- Expenditures for months 1 to 12 following engagement were \$3,252, or five percent higher than the forecasted amount of \$3,108.
- Expenditures for months 13 to 24 following engagement were \$2,037, or 39 percent lower than the forecasted amount of \$3,344.
- Expenditures for months 25 to 36 following engagement were \$979, or 63 percent lower than the forecasted amount of \$2,642.

Total PMPM medical expenditures for Tier 2 participants were above forecast for the first 24 months following engagement, before dropping below forecast in months 25 to 36:

- Expenditures for months 1 to 12 following engagement were \$3,101, or 81 percent higher than the forecasted amount of \$1,711.
- Expenditures for months 13 to 24 following engagement were \$1,927, or 11 percent higher than the forecasted amount of \$1,731.
- Expenditures for months 25 to 36 following engagement were \$1,201, or 28 percent lower than the forecasted amount of \$1,676.

**Exhibit 2-156 – Participants with Renal Failure as Most Expensive Diagnosis
Total PMPM Expenditures**



Tier 1 participants experienced a significant increase in outpatient hospital costs, which were more than offset by decreases in physician, pharmacy and minor categories of service (see exhibit 2-157). Tier 2 participants saw major increases in all categories of service, except for pharmacy.

***Exhibit 2-157 – Participants with Renal Failure as Most Expensive Diagnosis
PMPM Expenditures by Category of Service***

Category of Service	Tier 1			Tier 2		
	Pre-Engagement: 1-12 months	First 12 months of Engagement	Percent Change	Pre-Engagement: 1-12 months	First 12 months of Engagement	Percent Change
Inpatient Hospital	\$1,651	\$1,637	-0.9%	\$526	\$1,914	263.8%
Outpatient Hospital	\$123	\$279	125.9%	\$117	\$165	40.8%
Physician	\$638	\$614	-3.8%	\$231	\$350	51.3%
Behavioral Health (Psych.)	\$12	\$18	50.1%	\$4	\$14	238.7%
Pharmacy	\$643	\$382	-40.6%	\$436	\$411	-5.7%
All Other	\$338	\$322	-4.6%	\$152	\$247	61.9%
Total	\$3,407	\$3,252	-4.5%	\$1,467	\$3,101	111.3%

Total Medical Expenditure Impact of Nurse Care Management

Overall, a deficit of (\$901) PMPM occurred during the first 12 months following engagement for persons with renal failure, followed by savings of \$328 PMPM for months 13 to 24 and \$911 PMPM for months 25 to 36 (see exhibit 2-158).

***Exhibit 2-158 – Participants with Renal Failure as Most Expensive Diagnosis
Forecast versus Actual PMPM Medical Expenditures***

Enrollment Group	Engaged Period / Post-Engagement								
	1 to 12 months			13 to 24 months			25 to 36 months		
	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)
Tier 1	\$3,108	\$3,252	105%	\$3,344	\$2,037	61%	\$2,642	\$979	37%
Tier 2	\$1,711	\$3,101	181%	\$1,731	\$1,927	111%	\$1,676	\$1,201	72%
Tiers 1 & 2	\$2,256	\$3,157	140%	\$2,293	\$1,965	86%	\$2,029	\$1,118	55%

Rheumatoid Arthritis Population Utilization and Expenditures Trends

The SoonerCare HMP through SFY 2012 engaged 250 Tier 1 and 920 Tier 2 participants with rheumatoid arthritis. Rheumatoid arthritis was the most expensive diagnosis at the time of engagement for approximately 8 percent of Tier 1 and 19 percent of Tier 2 participants with this diagnosis (see exhibit 2-159). (Because of the relatively small number of cases, all findings should be interpreted with caution.)

Exhibit 2-159 – Participants with Rheumatoid Arthritis as Most Expensive Diagnosis

Enrollment Group	Participants with Diagnosis	Most Expensive Diagnosis	Percent Most Expensive
Tier 1	250	20	8%
Tier 2	920	176	19%
Tiers 1 & 2	1,170	196	17%

Over 98 percent of participants with rheumatoid arthritis also were diagnosed with another Chronic Impact condition, the most common being hypertension and depression (see exhibit 2-160).

Exhibit 2-160 – Participants with Rheumatoid Arthritis Co-morbidity with Chronic Impact Conditions

Comorbidity	Participants	%
Rheumatoid Arthritis	1,170	100.0%
	16	1.4%
+ Hypertension	917	78.4%
	2	0.2%
+ Depression	798	68.2%
	3	0.3%
+ Lower Back Pain	728	62.2%
	4	0.3%
+ Diabetes	628	53.7%
	2	0.2%
+ COPD	619	52.9%
	2	0.2%

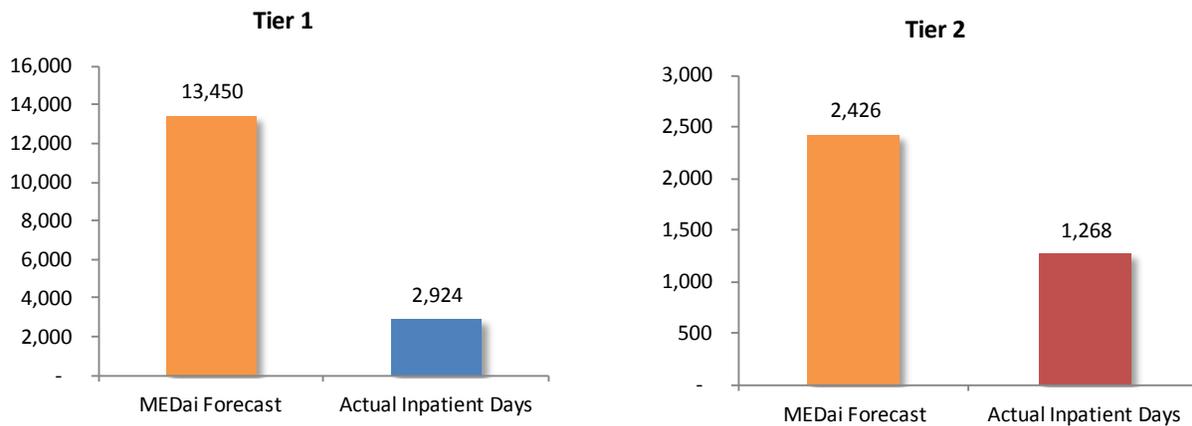
Participants with rheumatoid arthritis, the specified comorbidity, and additional comorbidities

Participants ONLY with rheumatoid arthritis and the specified comorbidity (no other comorbidities)

Utilization

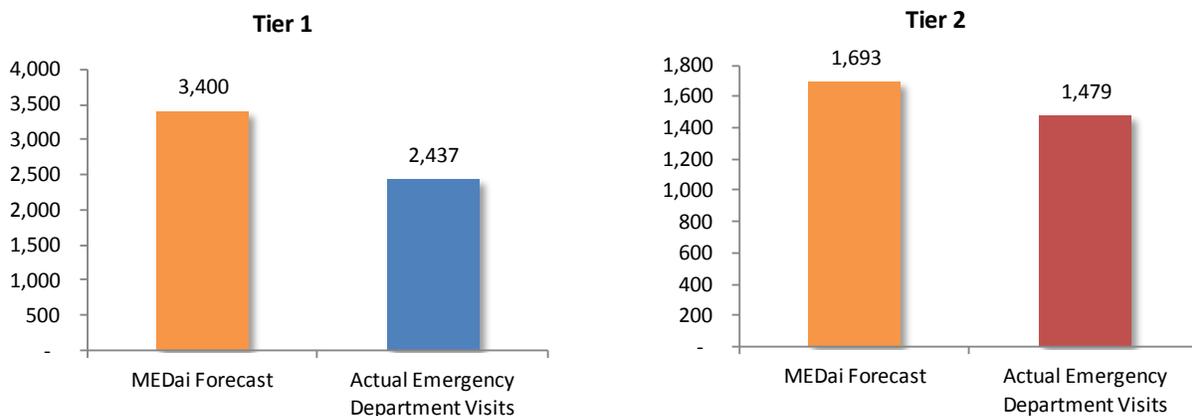
MEDai forecasted that Tier 1 participants would accrue 13,450 inpatient days per 1,000 participants in the first 12 months following engagement. The actual rate was 2,924, or 22 percent of forecast. Tier 2 participants accumulated 1,268 inpatient days, or 52 percent of forecast (see exhibit 2-161).

Exhibit 2-161 – Participants with Rheumatoid Arthritis as Most Expensive Diagnosis Inpatient Utilization - First 12 Months Following Engagement, per 1,000 Participants



For Tier 1 participants, MEDai forecasted an emergency department visit rate of 3,400 per 1,000 participants. The actual rate was 2,437, or 72 percent of forecast. Tier 2 participants were forecasted to visit the emergency department 1,693 times per 1,000 participants, while the actual rate was 1,479, or 87 percent of forecast (see exhibit 2-162).

Exhibit 2-162 – Participants with Rheumatoid Arthritis as Most Expensive Diagnosis Emergency Department Utilization - First 12 Months Following Engagement, per 1,000 Participants



Medical Expenditures – Total and by Category of Service

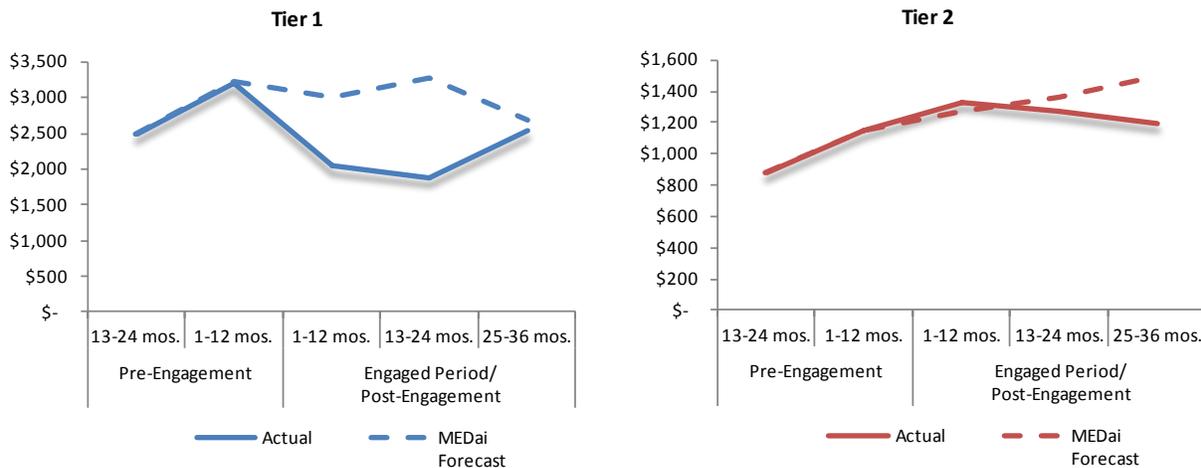
Total PMPM medical expenditures for Tier 1 participants were consistently below forecast, although the gap narrowed during months 25 to 36 following engagement (see exhibit 2-163):

- Expenditures for months 1 to 12 following engagement were \$2,056, or 32 percent lower than the forecasted amount of \$3,008.
- Expenditures for months 13 to 24 following engagement were \$1,900, or 42 percent lower than the forecasted amount of \$3,265.
- Expenditures for months 25 to 36 following engagement were \$2,555, or five percent lower than the forecasted amount of \$2,687.

Total PMPM medical expenditures for Tier 2 participants were above forecast for the first 12 months following engagement, before dropping below forecast in months 13 to 36:

- Expenditures for months 1 to 12 following engagement were \$1,337, or five percent higher than the forecasted amount of \$1,274.
- Expenditures for months 13 to 24 following engagement were \$1,276, or six percent lower than the forecasted amount of \$1,363.
- Expenditures for months 25 to 36 following engagement were \$1,198, or 20 percent lower than the forecasted amount of \$1,499.

**Exhibit 2-163 – Participants with Rheumatoid Arthritis as Most Expensive Diagnosis
Total PMPM Expenditures**



Tier 1 participants saw significant decreases from pre- to post-engagement across nearly all categories of services, except for steady physician costs and a slight increase in behavioral health utilization (see exhibit 2-164). Tier 2 participants experienced a decrease in outpatient hospital service utilization, but saw increases in all other categories of service.

**Exhibit 2-164 – Participants with Rheumatoid Arthritis as Most Expensive Diagnosis
PMPM Expenditures by Category of Service**

Category of Service	Tier 1			Tier 2		
	Pre-Engagement: 1-12 months	First 12 months of Engagement	Percent Change	Pre-Engagement: 1-12 months	First 12 months of Engagement	Percent Change
Inpatient Hospital	\$1,185	\$557	-53.0%	\$238	\$287	20.2%
Outpatient Hospital	\$251	\$191	-24.0%	\$140	\$121	-13.9%
Physician	\$636	\$652	2.6%	\$229	\$254	10.9%
Behavioral Health (Psych.)	\$35	\$52	49.7%	\$6	\$13	107.1%
Pharmacy	\$545	\$314	-42.3%	\$444	\$530	19.5%
All Other	\$569	\$289	-49.3%	\$96	\$133	38.7%
Total	\$3,221	\$2,056	-36.2%	\$1,153	\$1,337	15.9%

Total Medical Expenditure Impact of Nurse Care Management

Overall, medical expenditure savings attributable to nurse care management for persons with rheumatoid arthritis across both tiers were \$44 PMPM during the first 12 months following engagement, \$225 PMPM for months 13 to 24 and \$279 PMPM for months 25 to 36 (see exhibit 2-165).

***Exhibit 2-165 – Participants with Rheumatoid Arthritis as Most Expensive Diagnosis
Forecast versus Actual PMPM Medical Expenditures***

Enrollment Group	Engaged Period / Post-Engagement								
	1 to 12 months			13 to 24 months			25 to 36 months		
	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)
Tier 1	\$3,008	\$2,056	68%	\$3,265	\$1,900	58%	\$2,687	\$2,555	95%
Tier 2	\$1,274	\$1,337	105%	\$1,363	\$1,276	94%	\$1,499	\$1,198	80%
Tiers 1 & 2	\$1,451	\$1,407	97%	\$1,560	\$1,334	86%	\$1,611	\$1,333	83%

Schizophrenia Population Utilization and Expenditures Trends

The SoonerCare HMP through SFY 2012 engaged 996 Tier 1 and 2,664 Tier 2 participants with schizophrenia. Schizophrenia was the most expensive diagnosis at the time of engagement for approximately 30 percent of Tier 1 and 22 percent of Tier 2 participants with this diagnosis (see exhibit 2-166).

Exhibit 2-166 – Participants with Schizophrenia as Most Expensive Diagnosis

Enrollment Group	Participants with Diagnosis	Most Expensive Diagnosis	Percent Most Expensive
Tier 1	996	296	30%
Tier 2	2,664	576	22%
Tiers 1 & 2	3,660	872	24%

Nearly 99 percent of participants with schizophrenia also were diagnosed with another Chronic Impact condition, the most common being hypertension and depression (see exhibit 2-167).

Exhibit 2-167 – Participants with Schizophrenia Co-morbidity with Chronic Impact Conditions

Comorbidity	Participants	%
Schizophrenia	3,660	100.0%
	35	1.0%
+ Hypertension	2,809	76.7%
	4	0.1%
+ Depression	2,748	75.1%
	4	0.1%
+ Behavioral Health Disorder	2,033	55.5%
	4	0.1%
+ COPD	1,953	53.4%
	2	0.1%
+ Diabetes	2,084	56.9%
	1	0.0%

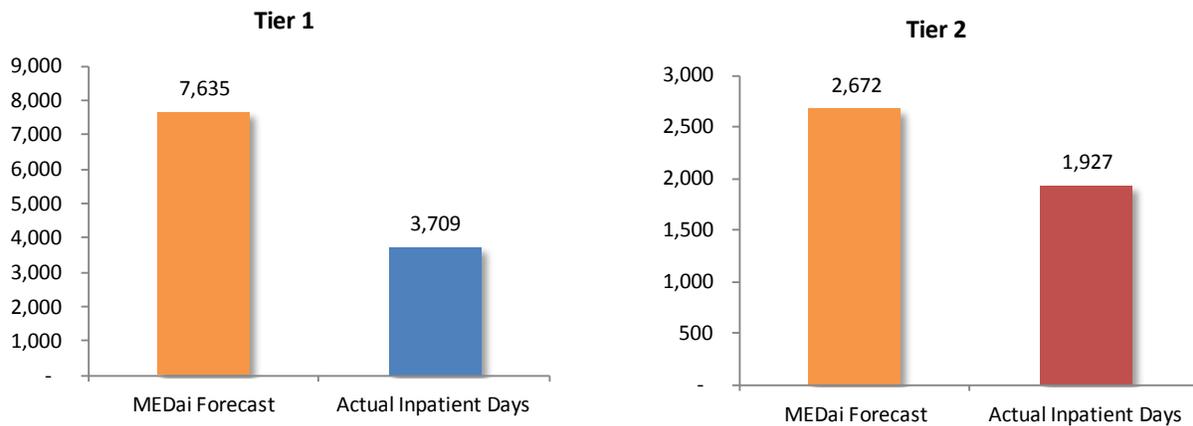
Participants with schizophrenia, the specified comorbidity, and additional comorbidities

Participants ONLY with schizophrenia and the specified comorbidity (no other comorbidities)

Utilization

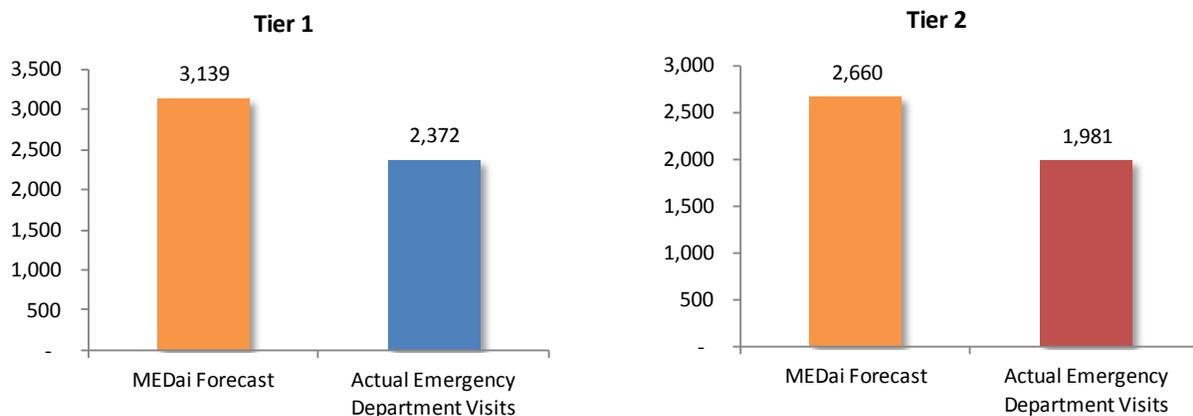
MEDai forecasted that Tier 1 participants would accrue 7,635 inpatient days per 1,000 participants in the first 12 months following engagement. The actual rate was 3,709, or 49 percent of forecast. Tier 2 participants accumulated 1,927 inpatient days, or 72 percent of forecast (see exhibit 2-168).

**Exhibit 2-168 – Participants with Schizophrenia as Most Expensive Diagnosis
Inpatient Utilization - First 12 Months Following Engagement, per 1,000 Participants**



For Tier 1 participants, MEDai forecasted an emergency department visit rate of 3,139 per 1,000 participants. The actual rate was 2,372, or 76 percent of forecast. Tier 2 participants were forecasted to visit the emergency department 2,660 times per 1,000 participants, while the actual rate was 1,981, or 75 percent of forecast (see exhibit 2-169).

**Exhibit 2-169 – Participants with Schizophrenia as Most Expensive Diagnosis
Emergency Department Utilization - First 12 Months Following Engagement, per 1,000 Participants**



Medical Expenditures – Total and by Category of Service

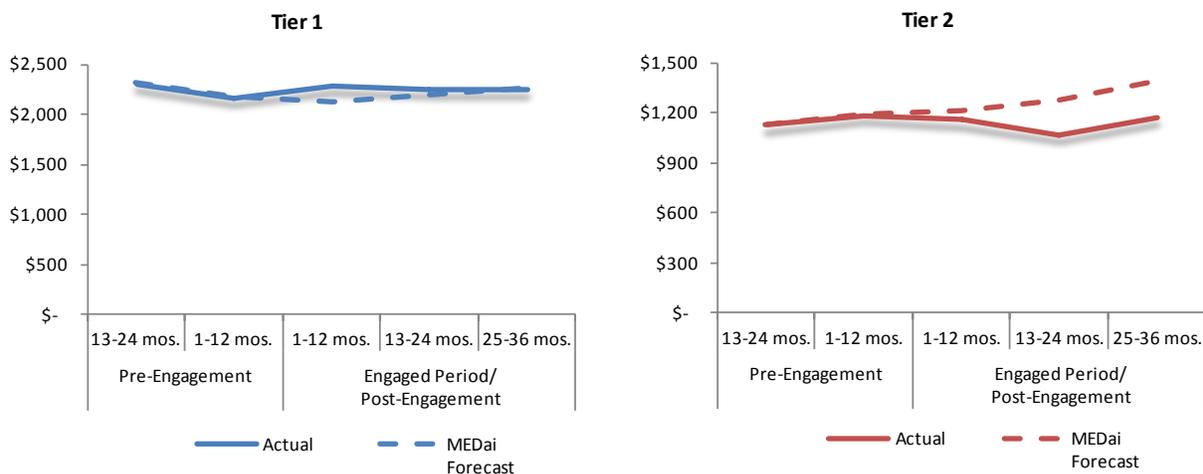
Total PMPM medical expenditures for Tier 1 participants were above forecast for the first 24 months following engagement before dropping even with forecast in months 25 to 36 (see exhibit 2-170):

- Expenditures for months 1 to 12 following engagement were \$2,296, or eight percent higher than the forecasted amount of \$2,128.
- Expenditures for months 13 to 24 following engagement were \$2,259, or three percent higher than the forecasted amount of \$2,200.
- Expenditures for months 25 to 36 following engagement were \$2,260, or 100 percent of the forecasted amount of \$2,271.

Total PMPM medical expenditures for Tier 2 participants were consistently below forecast, with the gap widening after months 1 to 12 following engagement:

- Expenditures for months 1 to 12 following engagement were \$1,157, or five percent lower than the forecasted amount of \$1,215.
- Expenditures for months 13 to 24 following engagement were \$1,074, or 16 percent lower than the forecasted amount of \$1,275.
- Expenditures for months 25 to 36 following engagement were \$1,177, or 16 percent lower than the forecasted amount of \$1,395.

**Exhibit 2-170 – Participants with Schizophrenia as Most Expensive Diagnosis
Total PMPM Expenditures**



Both Tier 1 and Tier 2 participants experienced a significant decrease in behavioral health expenditures, which counterbalanced increases in inpatient hospital and minor “other” categories of service (exhibit 2-171). Tier 2 participants also saw decreases in outpatient hospital and physician expenditures.

***Exhibit 2-171 – Participants with Schizophrenia as Most Expensive Diagnosis
PMPM Expenditures by Category of Service***

Category of Service	Tier 1			Tier 2		
	Pre-Engagement: 1-12 months	First 12 months of Engagement	Percent Change	Pre-Engagement: 1-12 months	First 12 months of Engagement	Percent Change
Inpatient Hospital	\$310	\$386	24.4%	\$181	\$187	3.6%
Outpatient Hospital	\$111	\$113	0.9%	\$94	\$88	-7.1%
Physician	\$235	\$248	5.8%	\$182	\$168	-7.4%
Behavioral Health (Psych.)	\$721	\$650	-9.8%	\$226	\$186	-17.7%
Pharmacy	\$665	\$640	-3.7%	\$405	\$397	-2.0%
All Other	\$131	\$259	98.4%	\$100	\$130	30.2%
Total	\$2,173	\$2,296	5.7%	\$1,188	\$1,157	-2.6%

Total Medical Expenditure Impact of Nurse Care Management

Overall, a deficit of (\$30) PMPM occurred during the first 12 months following engagement for persons with schizophrenia, followed by savings of \$92 PMPM for months 13 to 24 and \$143 PMPM for months 25 to 36 (see exhibit 2-172).

***Exhibit 2-172 – Participants with Schizophrenia as Most Expensive Diagnosis
Forecast versus Actual PMPM Medical Expenditures***

Enrollment Group	Engaged Period / Post-Engagement								
	1 to 12 months			13 to 24 months			25 to 36 months		
	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)
Tier 1	\$2,128	\$2,296	108%	\$2,200	\$2,259	103%	\$2,271	\$2,260	100%
Tier 2	\$1,215	\$1,157	95%	\$1,275	\$1,074	84%	\$1,395	\$1,177	84%
Tiers 1 & 2	\$1,525	\$1,555	102%	\$1,622	\$1,530	94%	\$1,732	\$1,589	92%

PMPM Utilization and Expenditures Trend Summary

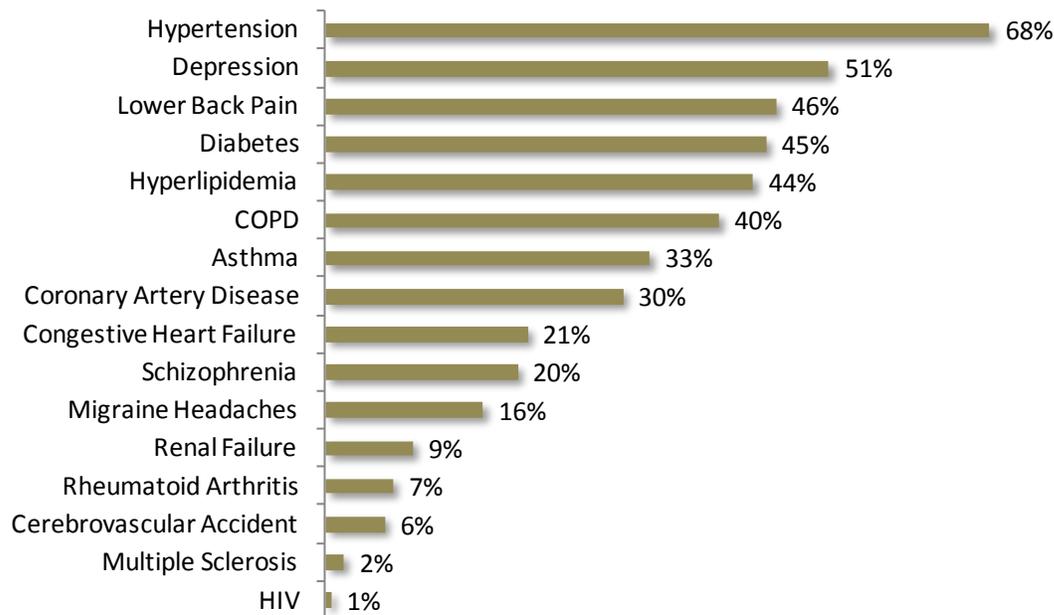
This section presents consolidated trend data across all nurse care managed participants, regardless of diagnosis. For approximately 63 percent of both Tier 1 and Tier 2 participants, the most expensive diagnosis at the time of engagement was one of the six target Chronic Impact conditions (asthma, COPD, congestive heart failure, coronary artery disease, diabetes, and hypertension) (see exhibit 2-173). By comparison, the percentages through SFY 2011 were 63 percent for Tier 1 and 64 percent for Tier 2.

Exhibit 2-173 – Participants with Target Chronic Impact Condition as Most Expensive Diagnosis

Enrollment Group	Total Participants*	Most Expensive Condition: Target Condition	Percent with Target Condition as Most Expensive
Tier 1	3,039	1,927	63%
Tier 2	13,412	8,516	63%

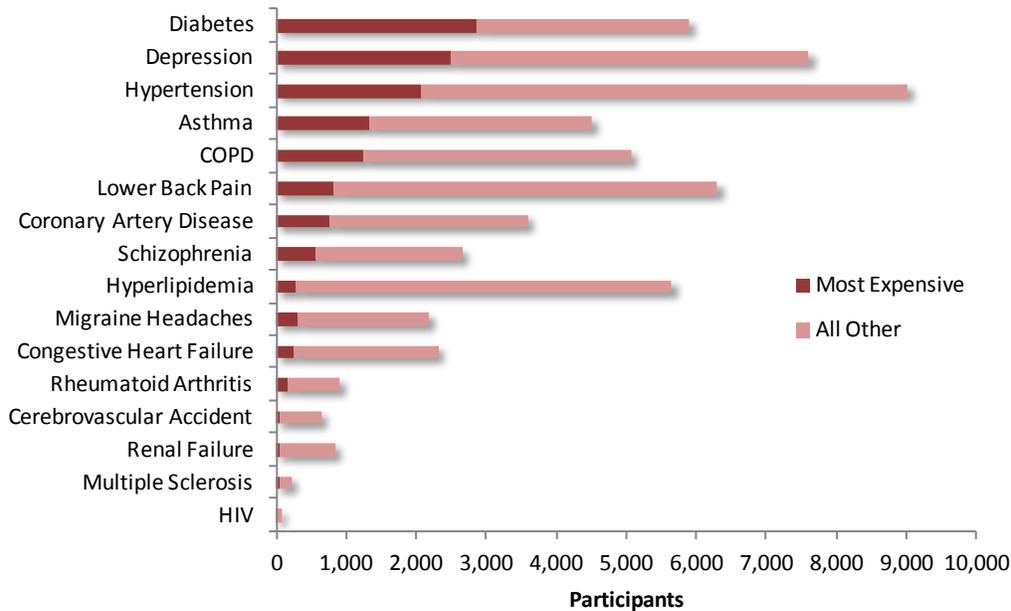
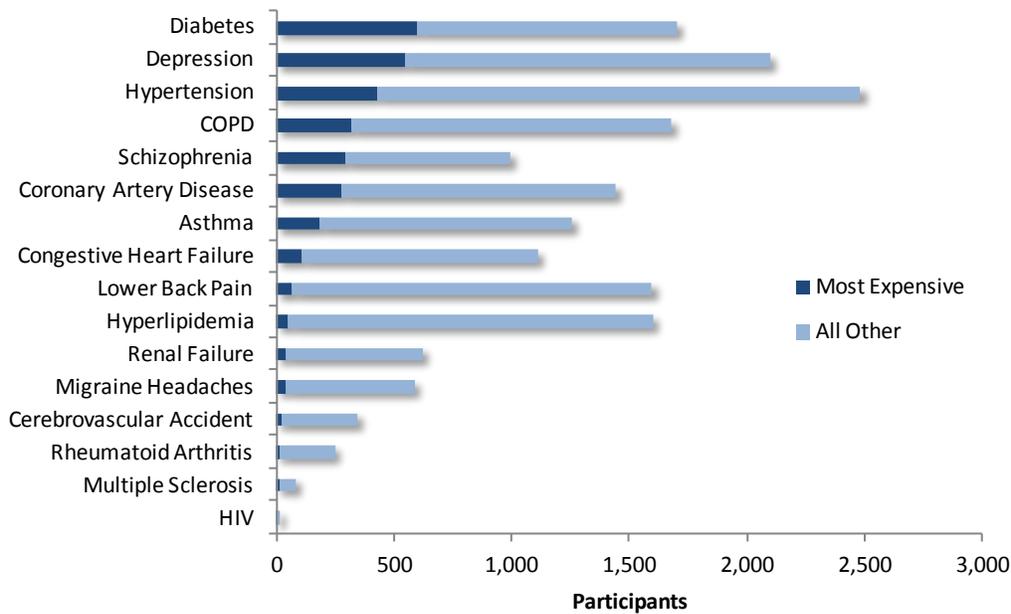
Among all participants, hypertension was the most common co-morbidity (68 percent), followed by depression (51 percent), lower back pain (46 percent), diabetes (45 percent) and hyperlipidemia (44 percent) (see exhibit 2-174). Most conditions were within one or two points of their prevalence through SFY 2011. The exceptions were COPD (down 10 points), diabetes (down seven points) and depression (down six points).

Exhibit 2-174 – All Participants – Prevalence of Co-morbidities



Diabetes was the most expensive condition for the largest number of both Tier 1 and Tier 2 participants (dark shading on exhibit), while hypertension was the most prevalent condition overall, including co-morbidities. Conditions are ordered top-to-bottom from most to fewest number of participants with the specified condition as their most expensive at the time of engagement (see exhibit 2-175). Most expensive diagnoses percentages are nearly identical to the previous year.

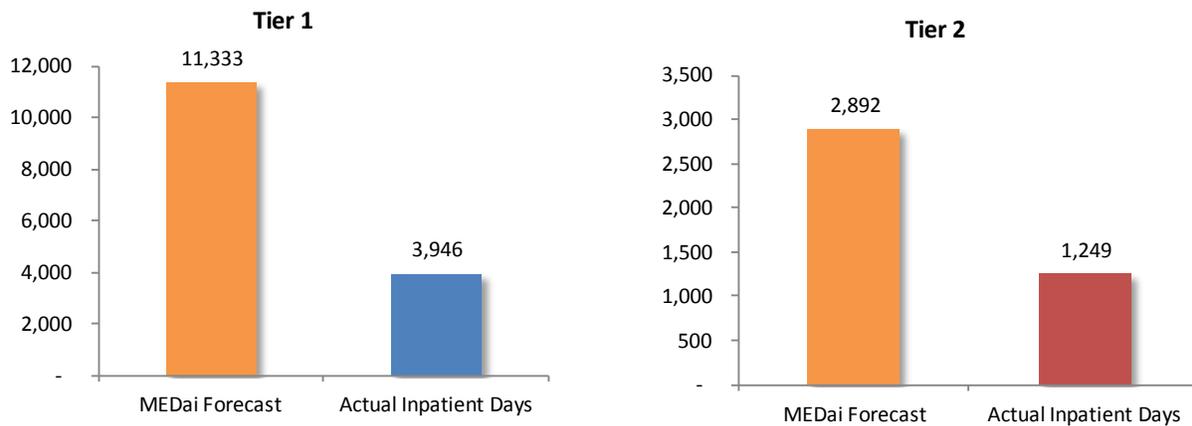
Exhibit 2-175 – All Participants – Prevalence of Chronic Impact Conditions by Tier



Utilization

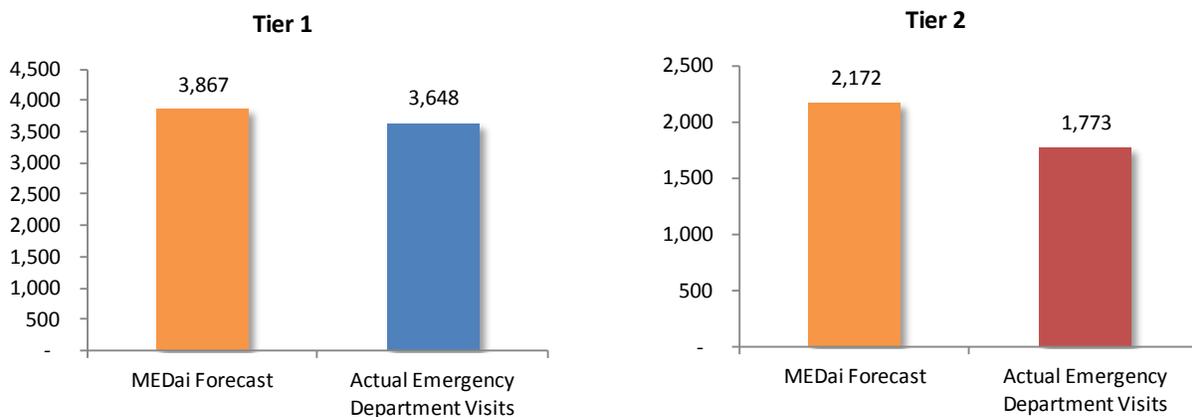
MEDai forecasted that Tier 1 participants would accrue 11,333 inpatient days per 1,000 participants in the first 12 months following engagement. Claims data showed the actual rate was 3,946, or 35 percent of forecast. Tier 2 participants accumulated 1,249 inpatient days, or 43 percent of forecast (see exhibit 2-176).

Exhibit 2-176 – All Participants – Inpatient Utilization, per 1,000 Participants First 12 Months Following Engagement



For Tier 1 participants, MEDai forecasted an emergency department visit rate of 3,867 per 1,000 participants. The actual rate was 3,648, or 94 percent of forecast. Tier 2 participants were forecasted to visit the emergency department 2,172 times per 1,000 participants, while the actual rate was 1,773, or 82 percent of forecast (see 2-177).

Exhibit 2-177 – All Participants – Emergency Department Utilization, per 1,000 Participants First 12 Months Following Engagement



Medical Expenditures – Total and by Category of Service

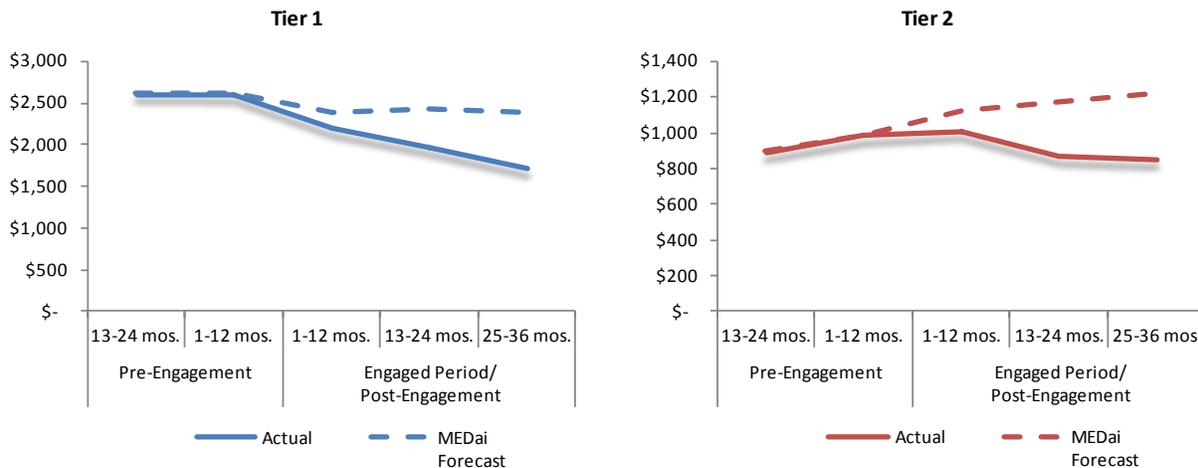
Total PMPM medical expenditures for Tier 1 participants were consistently below forecast, with the gap widening over time (see exhibit 178):

- Expenditures for months 1 to 12 following engagement were \$2,207, or eight percent lower than the forecasted amount of \$2,378.
- Expenditures for months 13 to 24 following engagement were \$1,984, or 18 percent lower than the forecasted amount of \$2,417.
- Expenditures for months 25 to 36 following engagement were \$1,731, or 28 percent lower than the forecasted amount of \$2,394.

Total PMPM medical expenditures for Tier 2 participants also were consistently below forecast, with the gap widening over time:

- Expenditures for months 1 to 12 following engagement were \$1,011, or 10 percent lower than the forecasted amount of \$1,125.
- Expenditures for months 13 to 24 following engagement were \$872, or 25 percent lower than the forecasted amount of \$1,169.
- Expenditures for months 25 to 36 following engagement were \$854, or 30 percent lower than the forecasted amount of \$1,218.

Exhibit 2-178 – All Participants – Total PMPM Expenditures



Tier 1 participants experienced decreases in utilization across all major categories of service, most notably inpatient hospital services (see exhibit 2-179). Tier 2 participants experienced decreases in outpatient hospital, physician and pharmacy services, which were just barely offset by increases in inpatient hospital, pharmacy and “all other” services.

Exhibit 2-179 – All Participants – PMPM Expenditures by Category of Service

Category of Service	Tier 1			Tier 2		
	Pre-Engagement: 1-12 months	First 12 months of Engagement	Percent Change	Pre-Engagement: 1-12 months	First 12 months of Engagement	Percent Change
Inpatient Hospital	\$1,018	\$721	-29.1%	\$239	\$254	6.4%
Outpatient Hospital	\$233	\$210	-9.8%	\$125	\$112	-10.5%
Physician	\$462	\$365	-21.1%	\$209	\$198	-5.3%
Behavioral Health (Psych.)	\$165	\$147	-10.7%	\$64	\$63	-2.0%
Pharmacy	\$408	\$394	-3.3%	\$235	\$252	7.2%
All Other	\$323	\$368	13.8%	\$113	\$133	17.8%
Total	\$2,610	\$2,207	-15.5%	\$985	\$1,011	2.7%

Total Medical Expenditure Impact of Nurse Care Management

Overall, medical expenditure savings attributable to nurse care management for all participants across both tiers were \$127 PMPM during the first 12 months following engagement, \$310 PMPM for months 13 to 24 and \$416 PMPM for months 25 to 36 (see exhibit 2-180).

Exhibit 2-180 – All Participants – Forecast versus Actual PMPM Expenditures

Enrollment Group	Engaged Period / Post-Engagement								
	1 to 12 months			13 to 24 months			25 to 36 months		
	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)	MEDai Forecast	Actual (Dollars)	Actual (% of Forecast)
Tier 1	\$2,387	\$2,207	92%	\$2,417	\$1,984	82%	\$2,394	\$1,731	72%
Tier 2	\$1,125	\$1,011	90%	\$1,169	\$872	75%	\$1,218	\$854	70%
Tiers 1 & 2	\$1,358	\$1,231	91%	\$1,400	\$1,090	78%	\$1,439	\$1,023	71%

Nurse Care Management Cost Effectiveness Analysis

Over time, the SoonerCare HMP should demonstrate its efficacy through a reduction in the relative PMPM and aggregate costs of engaged members versus what would have occurred absent enrollment in nurse care management. PHPG performed a cost effectiveness analysis for both tier groups by carrying forward and expanding the medical expenditure impact findings from the previous section and adding program administrative expenses to the analysis. To be cost effective, nurse care management must demonstrate lower expenditures even after factoring-in the program's administrative component.³⁵

PHPG analyzed cost effectiveness over the entire history of the program, including both engaged and post-engaged (where applicable) periods for all participants. The inclusion of the entire time span represents a slightly broader analysis than was used in the previous section, which focused on three twelve-month segments. The entire history through SFY 2012 was included in the cost effectiveness analysis to calculate the program's aggregate surplus or deficit.

The data in this section is divided between engaged and post-engaged periods. Analyzing participant experience after disenrollment (where applicable) is important to determining the performance of the program against stated objectives, including patient self-management of care and overall program cost effectiveness.

Administrative Expenses

SoonerCare HMP administrative expenses include salary, benefit and overhead costs for persons working in the SoonerCare HMP unit, plus Telligen vendor payments. The OHCA provided PHPG with detailed information on expenditures in both areas going back to initial agency planning and start-up activities.

SoonerCare HMP unit expenses were allocated between nurse care management and practice facilitation using factors provided by the OHCA; only nurse care management expenses were included in the analysis (practice facilitation expenses were included in a separate cost effectiveness analysis presented in chapter three).

OHCA salary and benefit costs were included for staff assigned to the SoonerCare HMP unit. Costs were prorated for employees working less than full time on the SoonerCare HMP.

Overhead expenses (rent, travel, etc.) were allocated based on the unit's share of total OHCA salary/benefit expenses in SFY 2007 (0.9 percent), 2008 (1.6 percent), 2009 (1.3 percent), 2010

³⁵ For the purposes of the cost effectiveness analysis only, PHPG altered MEDai forecasts for members whose cost for the year prior to engagement exceeded \$144,000, as MEDai forecasts have an upper limit of \$144,000. To ensure they would not skew the cost effectiveness test results, PHPG set the forecasts for these members equal to prior year costs, assuming no increase or decrease in medical costs.

(1.4 percent), 2011 (1.4 percent) and 2012 (1.4 percent). No specific allocation was made for MEDai activities, as these are occurring under a pre-existing contract.

Telligen vendor payments for start-up activities began in the second quarter of SFY 2008. OHCA provided detailed invoices that PHPG used to allocate fees between nurse care management and practice facilitation. Fees that could not be categorized based on invoice descriptions were allocated equally to each program component, with only nurse care management payments included in the analysis.

OHCA and Telligen administrative expenses were split equally between the two tier groups and divided by total participant “engaged” member months to derive an indirect administrative PMPM cost for each tier group.³⁶ The amounts were \$36.85 for Tier 1 and \$8.69 for Tier 2. Appendix D presents detailed information on the indirect administrative cost calculation.

The indirect administration PMPM values were added to the blended tier-specific monthly Nurse Care Management fee for SFY 2008 through 2012 to arrive at a total PMPM administrative cost for each tier, as presented in exhibit 2-181.

Exhibit 2-181 – Nurse Care Management PMPM Administrative Cost

Tier Group	PMPM Indirect Admin: Startup	PMPM Indirect Admin: Ongoing	PMPM Indirect Admin: Total	PMPM Telligen Fee ³⁷	Total PMPM Admin
Tier 1	\$9.81	\$27.04	\$36.85	\$184.57	\$221.42
Tier 2	\$2.31	\$6.37	\$8.69	\$46.26	\$54.95

³⁶ Although Tier 2 has more participants, OHCA staff members believe their time has been divided evenly between the two tiers due to the more intensive nature of care management activities for Tier 1. PHPG elected to divide Telligen indirect administrative expenditures evenly for this reason.

³⁷ Fees have varied across fiscal years. Represents a weighted average based on participants months in each year. Includes member months only for members included in the utilization/expenditure and cost effectiveness analyses, i.e., engaged more than two months as of June 30, 2012.

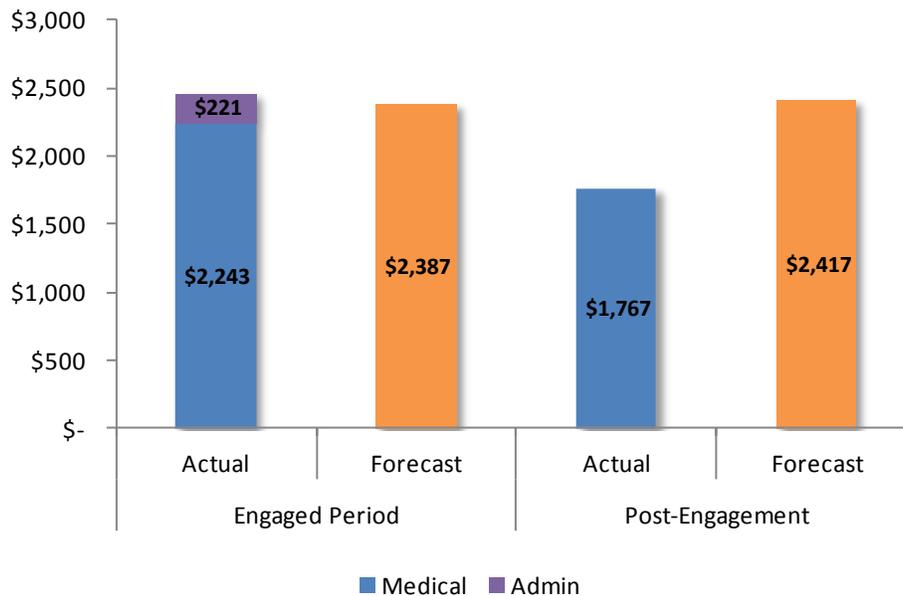
PMPM Medical Expenses and Cost-Effectiveness

PHPG performed cost-effectiveness tests by comparing forecasted costs to actual costs during the engaged and post-engagement periods. Results for both tiers are presented below.

Tier 1 Findings

As shown in the previous section, Tier 1 participant medical expenditures were slightly below forecast during the engaged period, and significantly below forecast for the post-engaged period. The addition of Tier 1 PMPM administrative costs increased total expenditures during the engaged period three percent above forecasted costs. However, the savings achieved post-engagement significantly outweighed the initial slight deficit (see exhibit 2-182).

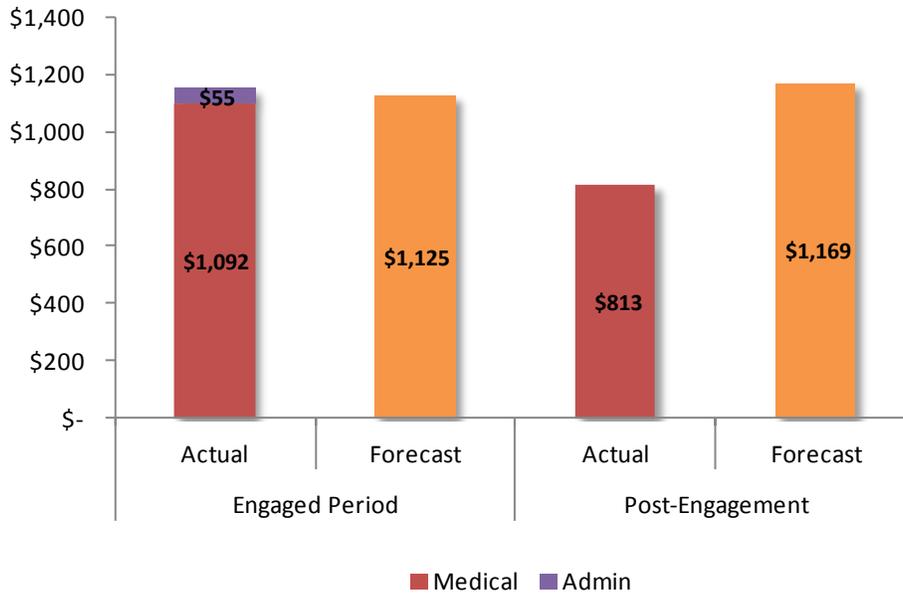
Exhibit 2-182 – Nurse Care Management PMPM Cost Effectiveness Test – Tier 1



Tier 2 Findings

Tier 2 participant expenditures also were slightly above forecast for the engaged period, after accounting for administrative expenses. However, as with Tier 1, the savings achieved post-engagement significantly outweighed the initial deficit (see exhibit 2-183).

Exhibit 2-183 – Nurse Care Management PMPM Cost Effectiveness Test – Tier 2



Aggregate Cost Effectiveness Test

PHPG multiplied member months by PMPM values to calculate the aggregate cost impact of nurse care management through SFY 2012. Summary results are presented in exhibit 2-184; detailed calculations are presented in Appendix D.

Exhibit 2-184 – Aggregate Cost Effectiveness Test

Enrollment Group	Engaged Period			Post-Engagement			Total Aggregate Savings/ (Deficit)
	Member Months	PMPM Savings/ (Deficit)	Aggregate Savings/ (Deficit)	Member Months	PMPM Savings/ (Deficit)	Aggregate Savings/ (Deficit)	
Tier 1	36,988	\$ (78.11)	\$ (2,889,024)	44,971	\$ 650.22	\$29,240,998	\$ 26,351,974
Tier 2	156,904	\$ (22.14)	\$ (3,473,217)	197,435	\$ 355.73	\$70,233,890	\$ 66,760,673
Total	193,892	\$ (32.81)	\$ (6,362,241)	242,406	\$ 410.36	\$99,474,888	\$ 93,112,647

Note: PMPM savings/(deficit) figures are rounded. Aggregate savings/(deficit) reflect exact PMPM to five decimal places.

The Tier 1 population, while generating a small deficit (four percent) during the first 12 months of engagement as measured against \$80 million in total medical claims costs, achieved significant savings (27 percent) in months 13 and beyond, as measured against \$109 million in total medical claims costs.

Tier 2 participants also generated a small deficit (two percent) during the first 12 months of engagement as measured against \$167 million in total medical claims costs; savings during the later period amounted to 30 percent, as measured against \$231 million in total medical claims costs.

Overall, the nurse care management portion of the SoonerCare HMP through SFY 2012 achieved aggregate savings in excess of \$93.1 million, or approximately 21 percent of total medical claims costs.

Nurse care management seeks to improve preventive and primary care utilization as a way to reduce future acute episodes of care. The program's design "front loads" the preventive/primary care expenditures with the expectation that savings will be achieved in later months. The initial Tier 1 and Tier 2 deficits shown above reflect these front-loaded costs, in addition to administrative expenses. The savings experienced after the first 12 months can be attributed in part to the program's positive impact on patient self-management, both during and after enrollment.

Nurse Care Management Evaluation - Summary of Key Findings

Nurse care management neared full enrollment at the end of the program's first full year of operations and maintained full enrollment through SFY 2011. Enrollment dipped in early SFY 2012 as the OHCA and Telligen made a concerted effort to graduate participants who had achieved their self-management goals. Enrollment was moving back toward capacity by the end of the fiscal year.

Telligen continued to meet contract requirements in SFY 2102 and participants remained very positive about the program, with nearly 90 percent describing themselves as very satisfied with their nurse care management and the SoonerCare HMP overall. Only about 27 percent of survey respondents reported an improvement in their health, but nearly all that did see an improvement attributed it to the program's services. Most of the former participants (classified as "dropouts" by Telligen) valued the program and would like to re-enroll. A significant minority of the population that initially "opted out" when contacted also would like another chance to enroll.

The results of the quality of care analysis were favorable, when comparing SoonerCare HMP participants to an "eligible but not enrolled" population. The participant compliance rate exceeded the comparison group rate on 14 of 21 diagnosis-specific measures (nearly 67 percent). The most impressive results, relative to the comparison group, were observed for participants with congestive heart failure, coronary artery disease and hypertension.

Evidence of the program's impact on utilization and expenditures, first documented in SFY 2010, continues to grow. Actual PMPM expenditures remain below MEDai forecasts and aggregate savings now stand at approximately \$93 million (see exhibit 2-185).

**Exhibit 2-185 – All Participants, by Fiscal Year of Engagement Date
Forecast versus Actual PMPM Medical Expenditures**

Engagement Dates During	Participant Count	Average Member Months		First 12 Months Following Engagement		
		Pre-Engagement: 1 to 12 months	First 12 Months Following Engagement	Forecast PMPM	Actual PMPM	Forecast versus Actual
SFY 2008	1,054	11.9	11.5	\$ 1,599	\$ 1,722	107.6%
SFY 2009	4,569	11.8	11.5	\$ 1,269	\$ 1,240	97.7%
SFY 2010	3,837	11.7	11.9	\$ 1,332	\$ 1,153	86.6%
SFY 2011	3,839	11.5	11.9	\$ 1,381	\$ 1,192	86.3%
SFY 2012	3,152	11.2	6.2	\$ 1,405	\$ 1,173	83.5%
Total	16,451	11.6	10.7	\$ 1,357	\$ 1,231	90.7%

Note: Only includes members with at least two months engagement and available MEDai data, approximately 91 percent of all members engaged through June 2012.

CHAPTER 3 – PRACTICE FACILITATION AND PROVIDER EDUCATION EVALUATION

Introduction

This chapter presents evaluation findings for the practice facilitation/provider education component of the SoonerCare HMP. The chapter begins with an overview of practice facilitation, followed by evaluation results in four areas:

- Onsite audit of Telligen
- Practice facilitation provider satisfaction survey
- Expenditure trends
- Cost effectiveness analysis

Each section begins with a description of the specific evaluation measures and evaluation methodology, followed by a detailed presentation of results.

Overview of the Practice Facilitation/Provider Education Model

Telligen has a team of practice facilitators in Oklahoma providing one-on-one in-office assistance to OHCA-designated primary care providers. The program is voluntary and offered at no charge to the provider. Practice facilitators assist primary care providers and their office staffs to improve their efficiency and quality of care through the following activities:

- Reviewing claims and clinical records using a standardized audit tool to determine provider deficiencies;
- Assessing primary care providers' care processes for potential improvement;
- Developing and implementing educational and other interventions based on the results of the audit tool and care process assessment;
- Providing quarterly continuing practice evaluation reports to primary care providers including, but not limited to, SoonerCare HMP enrollee participation and medical regimen adherence and performance against selected QM/QI measures; and
- Evaluating such interventions for acceptance, response and effectiveness and documenting successful interventions for inclusion in OHCA's Practice Facilitation Procedure Manual.

During SFY 2011, the OHCA and Telligen revised the practice facilitation recruitment process by requiring interested practices to undergo an application process. Practices complete an application which is reviewed by the OHCA. The OHCA's HMP director and manager meet with practices face-to-face. The shift towards engaging practices earlier in the process is believed to facilitate an increased investment in the program and its objectives by practices.

After a practice is selected for facilitation services, the practice facilitator works with the practice team, and consults with the OHCA as necessary, to outline the most appropriate implementation schedule of core components. Core practice facilitation components include:

- Foundational/infrastructural development;
- Full practice assessment/evaluation;
- Process improvement interventions; and
- Registry implementation.

During the initial time onsite, the practice facilitator observes office processes and flows, meets with the provider and key staff to determine goals and action plans and assists the office in completing a clinic self-assessment. The practice facilitator also audits charts of chronic disease patients to look for gaps in care. Based on the findings of the assessments and audit, the practice facilitator works with the provider and his/her staff to improve practice efficiency and effectiveness.

Providers engaged in practice facilitation also receive training in the CareMeasures™ Data Registry. CareMeasures™ is an electronic patient registry used by office personnel to securely collect clinical data on patients with chronic conditions for quality measurement purposes.

Practice facilitators install CareMeasures™ and assist with the initial entry of patient data into the data system. Providers and key staff then receive training on how to use CareMeasures™ on an ongoing basis. The information they enter is uploaded monthly to Telligen, where it is used to track provider quality of care using Healthcare Effectiveness Data and Information Set (HEDIS®) and HEDIS®-like measures.

Practices that master the core components work with the practice facilitator on implementing advanced concepts, which include developing and employing utilization of a patient education library; behavioral health screening processes, referral resources and coordination; educational resources; community resources; and motivational interviewing.

With the input of the OHCA, practice facilitators also organize, plan and administer collaborative training sessions to which all practice facilitation providers are invited. The collaboratives are designed to improve chronic and preventive care and to promote partnerships within the provider community. Meeting locations are rotated throughout the state.

Reward incentives also are available to providers who participate in practice facilitation. The incentive program is described in detail later in the chapter.

Telligen Onsite Audit – Practice Facilitation and Provider Education

PHPG’s November 2012 onsite audit of Telligen examined its compliance with contractual standards related to staffing, practice facilitation and provider education. PHPG also compared audit findings to reports previously submitted by Telligen to the OHCA, to validate the accuracy of Telligen’s data.

The specific evaluation measures addressed through the audit included both “structure” and “process” items, as summarized in exhibit 3-2.

Exhibit 3-2 – Onsite Audit Evaluation Measures – Practice Facilitation and Provider Education

Measure Type	Measure	Applies to
Structure	Practice Facilitator staffing	Practice Facilitation sites
	Practice Facilitation assessments	Practice Facilitation sites
Process	Quarterly mailings	All providers
	Monthly collaboratives	Practice Facilitation sites
	Incentive payments	Practice Facilitation sites

Practice Facilitator Staffing

Overview: Telligen is required to maintain a staff of eight field-based practice facilitators.

Evaluation Findings: PHPG reviewed Telligen practice facilitator staffing during SFY 2012 to verify compliance with the staffing standard. During this period, Telligen experienced some staff turnover. In the event that a practice facilitator leaves, the caseloads may be transitioned to other practice facilitators or the practice facilitator manager until the position becomes filled. Telligen management reported that beginning in August 2011 the practice facilitation manager provided practice facilitation to clinics directly.

Since implementation of the program, 88 practices have at least initiated practice facilitation and 53 continue to participate in the practice facilitation initiative. At the end of SFY 2012, each practice facilitator had an individual caseload of between six and 10 practices. Two of the more experienced practice facilitators also shared six practices when a facilitator left the program. The number of practices within each practice facilitator’s caseload generally depends on practice sizes, experience of the practice facilitator and the number of available practice facilitators.

Conclusion: At the time of PHPG’s onsite visit, Telligen reported filling vacant practice facilitator positions and had a full staff of eight.

Practice Facilitation Baseline Assessment

Overview: Practice facilitators spend several weeks onsite at newly-assigned practices. The exact amount of time spent at each practice is determined by the level of need to implement practice facilitation services. During the initial phase of practice facilitation, the practice facilitator compiles information on the practice, including quality improvement and disease identification processes, patient education, community resource use, practice policies and procedures, staff input on efficiency and quality of care and overall practice interest for in-services.

Providers and practice staff also complete a “Clinical Practice Self-Evaluation Study” – a compilation survey that evaluates a practice’s chronic illness resources, quality improvement activities, office efficiency and level of care for four chronic conditions: heart failure, coronary artery disease, diabetes and hypertension. Once the assessments are completed, the practice facilitator shares the results with the entire practice.

Practice facilitators also perform chart audits to obtain baseline data on the practice’s patients with chronic conditions. This baseline is used to create a priority list for the practice to improve quality of care and office efficiency. Plan Do Study Act (PDSA) Worksheets are then completed. These worksheets describe the plan for change, necessary steps and the responsible parties to implement any changes. Education also is provided on quality improvement using various tools and resources (for example, the Doctor’s Office Quality-Information Technology (DOC-IT) approach). Other activities include development of pre- and post-facilitation flow charts.

Evaluation Findings: Telligen reported initiating practice facilitation services at five practices between spring 2011 and summer 2012, as well as one site that did not subsequently participate in facilitation. (Telligen also began practice facilitation in July 2012 at three additional sites, although these fell outside of the time period covered in the SFY 2012 audit.) Baseline assessments were performed at all practices.

Conclusion: Telligen met contract standards for performance of practice facilitation assessments.

Provider Education – Quarterly Mailings

Overview: Telligen is required to mail-out educational materials on a quarterly basis to SoonerCare primary care providers throughout Oklahoma. The mailings generally include national and statewide chronic disease data, recommendations on patient education, and information on additional resources for providers.

Telligen provides a list of suggested topics to the OHCA and the OHCA makes the final selection. Telligen’s SoonerCare HMP Medical Director composes the materials, which are then mailed to an OHCA-designated list of providers. Telligen generates and distributes the educational materials to providers through an automated system.

Evaluation Findings: Four mailings were sent out in SFY 2012. Exhibit 3-3 below provides a synopsis of the SFY 2012 mailings.

Exhibit 3-3 – Quarterly Mailing Topics

Mailing Date	Topic	Summary
September 2011	Diabetes Mellitus: Reducing Risk of Influenza and Invasive Pneumococcal Disease	<ul style="list-style-type: none"> • Tips for preventing influenza • Tips for preventing invasive pneumococcal disease
December 2011	Standards of Medical Care for Diabetes	<ul style="list-style-type: none"> • Criteria for diagnosis of diabetes • Selected standards of medical care for diabetes mellitus
March 2012	Patient Activation and Motivational Interviewing: Tools to Improve Patient Outcomes	<ul style="list-style-type: none"> • Stages of patient activation • Spirit of motivational interviewing
June 2012	SoonerCare Health Management Program	<ul style="list-style-type: none"> • Provides an overview of the SoonerCare Health Management Program’s member focused care management and physician-focused practice facilitation programs

Conclusion: Telligen met the contractual requirements with respect to quarterly mailing distributions.

Monthly Collaboratives

Overview: With the aid of the OHCA, practice facilitators also organize, plan and administer collaborative sessions to which all practice facilitation providers are invited. The monthly collaboratives are designed to improve chronic and preventive care and to promote partnerships within the provider community. Meeting locations are rotated throughout the state.

Evaluation Findings: Ten collaborative meetings were held in SFY 2012. Meetings were held every month except for August and December 2011. The meetings generally focused on overviews of participating providers, the relationship between performance improvement and chronic conditions, and round table or panel discussion.

During the SFY 2010 onsite visit, Telligen management reported exploring potential methods to encourage provider participation, including offering financial incentive payments for attendance. In addition to providers, clinic owners and staff participating on a quality improvement team would be eligible for an incentive payment for attendance and participation.

Beginning in June 2011, the OHCA and Telligen made the first payments using this updated incentive plan. Providers who attend and participate at regional collaborative meetings receive an incentive payment. Clinic owners other than the provider who attend the clinic also receive a clinic payment, as well as clinic staff who participate in the practice's quality improvement team.

During the second quarter of 2012, the incentive program was revised to provide \$250 to attending and participating providers and \$100 to clinic staff on the quality improvement team. Practices are required to actively participate in discussions to qualify.

In SFY 2012, OHCA and Telligen management also initiated a new format for collaboratives to improve discussions. Changes include conducting collaboratives in small groups and in a round table discussion format to foster clinic engagement. Discussions also are led by practices and practice facilitators rather than by the program's OHCA and Telligen medical directors. In addition, performance data is shared at the collaboratives to encourage performance improvement among the practices.

Conclusion: Telligen met the contractual requirements to hold monthly collaborative meetings.

Incentive Payments

Overview: Providers who participate in practice facilitation have several opportunities to earn incentive payments.

As discussed above, providers who attend and participate at regional collaborative meetings are eligible to receive a payment of \$250. Clinic staff members who participate on the quality improvement team are encouraged to attend and participate at the meetings. Staff members are eligible to receive a payment of \$100. Participation is defined by activities including presenting basic clinic information and introducing staff; presenting PDSA cycles; and giving recommendations for program change. Practices are eligible for one payment per year.

All providers engaged in practice facilitation receive training in the CareMeasures™ Data Registry. Each practice selects at least one target chronic disease process to report patient data in CareMeasures™. The chronic disease processes currently available for tracking include: asthma, chronic obstructive pulmonary disease, congestive heart failure, coronary artery disease, diabetes mellitus and hypertension. Providers also may elect to report on their preventive care related to breast cancer, colorectal cancer, influenza vaccination, pneumonia vaccination and tobacco cessation.

The revised incentive program requires new practices (i.e., never have been paid for reporting) to input applicable data into CareMeasures™ (or electronic health record or other registry) on a monthly basis. Practices also are required to be actively involved in the requirement for the majority of the measurement period, which is defined as four out of six months. The amount is pro-rated based on the number of members tracked in the disease registry. Data entry by the practice facilitator does not meet the criteria for this incentive; practices are required to input their own data on a monthly basis to be eligible. The “pay-for-reporting” incentive is paid out at the end of the second and fourth quarters for the year and is available for 12 months following the period of active facilitation (for a maximum of four quarters).

Practices that demonstrate a 10 percent relative improvement on their quality measure sets for the clinical suites chosen by the practice for quality improvement are eligible to receive a “pay-for-performance improvement” incentive. Performance improvement compares data over a 12-month period to performance level in the preceding year.

In addition, practices may be eligible for a “pay-for-process improvement” incentive for establishing education processes, including establishment and maintenance of an accessible patient education resource library for use by the provider and/or staff to enhance members’ health knowledge and healthcare participation. To qualify for this payment, the patient education library must be organized and systematic; inclusive of the most common-place chronic diseases; maintained with up-to-date resources; routinely utilized at chronic disease patient encounters; actively involved in requirement for majority of measurement period; and documented that library is actively used. Payments also are available for practices that provide

direct support of community/evidence-based education programs such as Living Longer Living Stronger and diabetes education.

Practices also are eligible to receive process improvement payments for implementing qualifying PDSA cycles (e.g., meeting Medical Home Tier Requirements and leadership and/or team development activities) and utilization of same day mailing/phone appointment and missed appointment reminder systems.

In March 2012, the OHCA and Telligen revised the practice facilitation incentive plan. The first payments using the new methodology were made during the second quarter of 2012. Exhibit 3-4 provides an overview of the program’s updated incentive plan.

Exhibit 3-4 – SoonerCare HMP Practice Facilitation Incentive Plan, as of March 2012

Incentive Description	Amount	Requirements
Pay for Attending and Participating in Collaborative Meetings		
Attendance and participation at regional collaborative meetings	<ul style="list-style-type: none"> • Provider – \$250 • Clinic QI-Team Staff – \$100 • One payment per year per practice 	Attendance and active participation at collaborative meetings
Pay for Reporting		
Reporting chronic disease quality measures on a monthly basis through the CareMeasures™ patient registry and data warehouse	<ul style="list-style-type: none"> • 1-50 members – \$500/clinical suite • 51-100 members – \$750/clinical suite • 1,000 members – \$1,000/clinical suite • Maximum amount dependent on number of members and clinical suites (ranging from \$1,000 to \$3,000 per year) • Available only for 12 months following period of active facilitation (for a maximum of four quarters) 	Practice inputs applicable data into CareMeasures™ (or electronic health record/other registry) on a monthly basis with active involvement in the requirement for the majority of measurement period defined as four out of six months
Pay for Performance Improvement		
Demonstration of 10% relative improvement on quality measure sets for clinical suites chosen by practice for quality improvement	<ul style="list-style-type: none"> • \$500 per clinical suite which has 10% relative improvement in core measures (must be actively working on all measures within the suite) over the 12-month period compared to performance level in the preceding year • Maximum amount of \$2,000 per year • Paid out annually 	Improvement calculated by Telligen based on data submitted to CareMeasures™ data warehouse
Pay for Process Improvement		
Education processes and/or advanced education processes	<ul style="list-style-type: none"> • \$500 for establishment, maintenance and utilization of patient education library and/or • \$250 for direct support of community/evidence-based education programs • \$1,000 maximum payout per practice (one time only) • Paid out in the quarter following establishment of the library 	Current and accessible patient education resource library for use by provider/staff to enhance members’ health knowledge and health care participation; direct support of evidence-based programming

Incentive Description	Amount	Requirements
New quality improvement (PDSA) cycles actively deployed by practice	<ul style="list-style-type: none"> • \$250 per new PDSA cycle deployed targeting office efficiency • \$500 per new PDSA cycle deployed targeting improvement in specific clinical measures • Practices eligibility only if never received prior payment for this category 	Implement qualifying PDSA cycles such as meeting Medical Home Tier requirements, leadership and/or team development activities for PDSA cycles implemented after January 1, 2011
Utilization of appointment reminder or no show/no call follow up system	<ul style="list-style-type: none"> • \$500 maximum payment • Practices eligibility only if never received prior payment for this category 	Use of same day mailing/phone reminder of appointments and missed appointments

Evaluation Findings: Telligen has made pay-for-participation payments to all eligible practices.

Thirty-three practices received payment for attending collaboratives during SFY 2012.

Telligen tracks provider reporting into CareMeasures™ on an automated basis. Telligen also automatically calculates and tracks composite scores by practice.

During SFY 2012, 51 out of 52 practices were reporting in CareMeasures™, and 18 practices submitted data for the requisite reporting period and received an incentive payment for monthly reporting of chronic disease quality measures. Payments made during this period ranged from \$250 to \$1,750. Forty-one practices demonstrated improvement during the measurement period of calendar year 2011 and were eligible for payment.

Of the practices eligible for process improvement payments, 18 practices received payment for PDSA deployment and seven received payment for appointment reminder systems. At the conclusion of SFY 2012, all eligible practices (48 sites) received payment for establishment of a patient education library.

Conclusion: The structure for calculating and making incentive payments is in place and being managed in accordance with contractual requirements.

Practice Facilitation Provider Survey Findings

PHPG is conducting an ongoing survey of provider offices that participate in practice facilitation, to gather information on provider perceptions and satisfaction with the experience. Since PHPG began surveying providers in April 2009, PHPG has conducted 77 provider satisfaction surveys.

Survey Methodology and Structure

The OHCA provides to PHPG the names of primary care practices and providers who have completed the initial onsite portion of practice facilitation. PHPG sends introductory letters informing providers they will be contacted by telephone to complete a survey. Providers also are given the option of completing the survey via mail, fax or email.

The survey instrument consists of 26 questions in five areas:

- Practice demographics;
- Decision to participate in practice facilitation;
- Practice facilitation components;
- Practice facilitation outcomes; and
- Nurse care management.

Survey responses can be furnished by providers and/or members of the practice staff. Only practice staff members with direct experience and knowledge of the program are permitted to respond to the survey in lieu of the provider. PHPG screens non-physician respondents to verify their involvement with the program before proceeding to conduct the survey.

The provider survey results, like the nurse care management participant survey, are based on a sample of the total practice facilitation population, and therefore, contain a margin of error. As of the date of this report, 88 practices have undergone some phase of practice facilitation, of which 53 continue to participate. Seventy-seven of 88 practices elected to participate in the survey. The results within this report build upon findings from all surveys conducted to date except where otherwise indicated. The margin of error for this survey is +/- 3.97 percent. Although this is a moderately large confidence interval, most responses were sufficiently lopsided to accommodate the range.

Practice Facilitation Survey Findings

The survey respondents were comprised of 70 general/family medicine practices, four general internal medicine practices, one general pediatrics practice, one multi-practice clinic and one urgent care provider. Most (58 percent) reported that they primarily treat Medicaid patients, and 78 percent reported having been Medicaid providers for at least five years. Findings are presented on the following pages.

Decision to Participate

Survey respondents cited a variety of reasons for deciding to participate in practice facilitation. However, the largest segment, at 44 percent, gave as their most important reason the desire to improve care management and outcomes of patients with chronic conditions, matching OHCA’s own objectives for the program.

Providers and practice staff were asked to rate the importance of the specific activities typically performed by practice facilitators during and after their time onsite. Respondents were asked to rate the importance of these practice facilitation components regardless of the practice’s actual experience.

Each of the activities was rated “very important” by at least 59 percent of the respondents (see exhibit 3-5). The baseline assessment received the highest rating (83 percent), followed by receiving information on the prevalence of chronic diseases among their patients (78 percent).

During SFY 2012, 17 providers elected to participate in the survey. Similar to findings presented in the SFY 2011 evaluation report and composite results (across all surveyed sites), the baseline assessment received the highest rating (82 percent), followed by receiving information on the prevalence of chronic diseases among patients (76 percent).

Exhibit 3-5 – Importance of Practice Facilitation Components

Practice Facilitation Component	Surveyed SFY 2012	Level of Importance (Composite)			
	Very Important	Very Important	Somewhat Important	Not too Important	Not at all Important/N/A
1. Receiving information on the prevalence of chronic diseases among your patients	76.5%	77.9%	16.9%	5.2%	0.0%
2. Receiving a baseline assessment of how well you have been managing the care of your patients with chronic diseases	82.4%	83.1%	16.9%	0.0%	0.0%
3. Receiving focused training in evidence-based practice guidelines for chronic conditions	58.8%	70.1%	29.9%	0.0%	0.0%

Practice Facilitation Component	Surveyed SFY 2012	Level of Importance (Composite)			
	Very Important	Very Important	Somewhat Important	Not too Important	Not at all Important/ N/A
4. Receiving assistance in redesigning office workflows and policies and procedures for management of patients with chronic diseases	58.8%	59.7%	40.3%	0.0%	0.0%
5. Identifying performance measures to track your improvement in managing the care of your patients with chronic diseases	70.6%	74.0%	24.7%	1.3%	0.0%
6. Having a Practice Facilitator on-site to work with you and your staff	52.9%	61.0%	27.3%	10.4%	1.3%
7. Receiving quarterly reports on your progress with respect to identified performance measures	70.6%	70.1%	28.6%	1.3%	0.0%
8. Receiving ongoing education and assistance after conclusion of the initial on-site activities	70.6%	75.3%	18.2%	5.2%	1.3%

Helpfulness of Program Components

Respondents were next asked to rate the helpfulness of the same practice facilitation components in terms of improving their management of patients with chronic conditions. The majority of practices reported each of the activities to be very helpful (see exhibit 3-6).

Exhibit 3-6 – Helpfulness of Practice Facilitation Components

Practice Facilitation Component	Surveyed SFY 2012	Level of Helpfulness (Composite)				
	Very Helpful	Very Helpful	Somewhat Helpful	Not too Helpful	Not at all Helpful	Activity did not Occur
1. Receiving information on the prevalence of chronic diseases among your patients	70.6%	63.6%	26.0%	7.8%	0.0%	2.6%
2. Receiving a baseline assessment of how well you have been managing the care of your patients with chronic diseases	70.6%	75.3%	18.2%	5.2%	0.0%	1.3%
3. Receiving focused training in evidence-based practice guidelines for chronic conditions	52.9%	64.9%	23.4%	10.4%	0.0%	1.3%

Practice Facilitation Component	Surveyed SFY 2012	Level of Helpfulness (Composite)				
	Very Helpful	Very Helpful	Somewhat Helpful	Not too Helpful	Not at all Helpful	Activity did not Occur
4. Receiving assistance in redesigning office workflows and policies and procedures for management of patients with chronic diseases	52.9%	55.8%	31.2%	10.4%	0.0%	2.6%
5. Identifying performance measures to track your improvement in managing the care of your patients with chronic diseases	82.4%	70.1%	20.8%	6.5%	0.0%	2.6%
6. Having a Practice Facilitator on-site to work with you and your staff	58.8%	67.5%	18.2%	10.4%	2.6%	1.3%
7. Receiving quarterly reports on your progress with respect to identified performance measures	70.6%	67.5%	23.4%	3.9%	0.0%	5.2%
8. Receiving ongoing education and assistance after conclusion of the initial on-site activities	70.6%	70.1%	14.3%	10.4%	1.3%	3.9%

Of the practices surveyed in SFY 2012, receiving assistance in identifying performance measures to track improvement in management of care was cited as the most helpful component of the program (82 percent). Telligen management reported that practices are making progress in improving their performance measures. Telligen practice facilitators review monthly results directly with practices during onsite visits and present annual results during collaborative meetings.

Program Impact

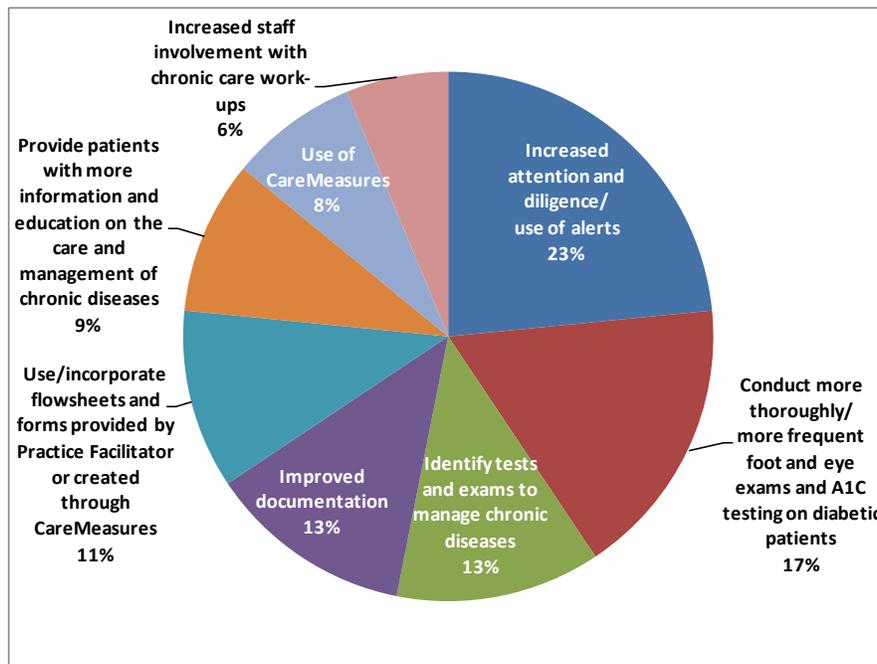
Eighty-seven percent of the surveyed practices reported making changes in the management of their patients with chronic conditions as a result of participating in practice facilitation. The few that did not report making changes indicated they had incorporated the facilitator’s recommendations prior to the exercise or had just completed practice facilitation at the time of the survey and were in the process of implementing changes.

When asked to name their most important change, many cited activities directly related to quality of care. Twenty-three percent reported a general increase in attention and diligence in care. Practices also reported setting alerts in their electronic health records systems to notify them of tests and items to discuss during patient visits.

Providers and practice staff also reported making foot and eye exams and HbA1c testing on diabetic patients a priority. Seventeen percent of practices reported conducting more thorough exams on patients with diabetes and documenting the exams. Practices reported using the materials provided by their practice facilitator to create guides for best practices in diabetic care. Some practices described patients becoming accustomed to taking off their shoes and socks immediately upon entering the examination room.

In addition, staff reported becoming more involved with chronic care work-ups, which in turn increased the practice’s efficiency over time. Thirteen percent of the practices mentioned making general improvements in patient documentation, and 11 percent stated they are incorporating the flow sheets and other forms provided by their practice facilitator (see exhibit 3-7).

Exhibit 3-7 – Most Important Change Made by Practice



CareMeasures™

One of the key documentation and patient tracking components of practice facilitation is CareMeasures™, a web based electronic patient registry that securely collects clinical data on SoonerCare HMP participants for quality measurement purposes. Seventy-four percent of surveyed practices reported using CareMeasures™ and another five percent reported being in the training phases. Of the practices using CareMeasures™ to track performance improvement, 72 percent found CareMeasures™ to be a useful tool.

When initially surveyed, solo practitioners and smaller practices indicated that CareMeasures™ training and data entry required a considerable investment of staff time, which they considered

burdensome. During subsequent interviews with staff, PHPG asked whether this perception had changed over time.

Practice staff replied that it took a significant amount of time to become familiarized with the process. However, most now find CareMeasures™ data entry to be easier, in part due to introduction of a more user-friendly version of the application interface and in part due to gaining familiarity with the reporting process. Several practices reported using CareMeasures™ to track privately insured and Medicare patients, as well as chronic disease measures outside of the ones addressed through the SoonerCare HMP.

In more recent surveys, a few practices recommended that CareMeasures™ allow for compatibility and integration with the practice’s electronic health records system to avoid duplication of work.

Incentive Payments

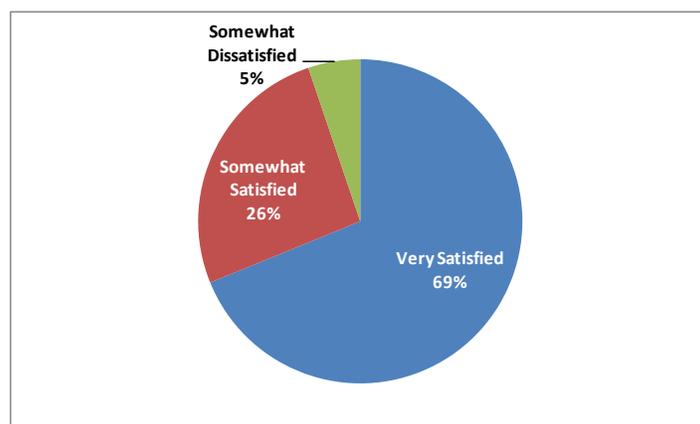
Providers are eligible for various incentive payments such as for submitting data through CareMeasures™ and demonstrating improvements in care over time. Eighty-two percent of the survey respondents were aware of the various incentive payments being offered for their participation in the initiative.

Although the availability of incentive payments was not a primary motivation for participating in practice facilitation, most stated the incentive payments made it more likely they would continue to participate.

Overall Satisfaction

Overall, 87 percent of the practices credited the program with improving their management of patients with chronic conditions. Sixty-nine percent reported being “very satisfied” with their experience, and another 26 percent were somewhat satisfied (see exhibit 3-8).

Exhibit 3-8 – Satisfaction with Practice Facilitation Experience



Almost all of the surveyed practices (91 percent) said they would recommend the practice facilitation initiative to other physicians caring for patients with chronic conditions. Many indicated that they want the OHCA to offer the program to more practices.

Recommendations for Improvement

Despite reporting high levels of satisfaction, providers did have suggestions for improving the program. The most common recommendation was to have the practice facilitator on-site more frequently and for longer periods of time, particularly to assist with data entry and use of CareMeasures™.

Other recommendations included:

- Make CareMeasures™ more user-friendly for providers³⁸
- Provide more support and assistance for CareMeasures™ data entry
- Tailor the program and forms to suit the needs of the practice for efficiency
- Enable providers to demonstrate to the OHCA that patients are non-compliant

The request for more time onsite conflicts with lesser importance assigned to this feature earlier in the survey (see exhibit 3-5) and reflects a split among smaller and larger practices. Some solo practitioners and smaller practices complained about the intrusiveness of the onsite portion of practice facilitation and the burden associated with using CareMeasures™.

Of the practices surveyed during SFY 2012, recommendations included:

- Limit the need to switch practice facilitators
- Allow for compatibility and integration of CareMeasures™ with practices' electronic health record systems
- Encourage staff and residents to become more involved in the program

PHPG followed up with Telligen management regarding some of the recommendations made by recently surveyed practices. Telligen management reported experiencing staffing turnover during 2012 which resulted in some practices working with more than one practice facilitator. At the time of this report, Telligen reported being fully staffed.

During PHPG's discussions with Telligen, management also reported working with practices to identify options for integration of CareMeasures™ with systems available in the clinic. However, given the extensive costs required to develop the necessary integration pathways, the practices have elected to keep their systems separate rather than invest additional resources to make modifications.

³⁸ Some recommendations were made prior to introduction of the more user-friendly data entry format.

The OHCA and Telligen also have developed incentive payments for practice staff involvement, including attendance at monthly collaboratives. During SFY 2012, practice facilitators began working with medical assistants in the practices on techniques for engaging patients in self-management. Telligen also is in the process of working with academic centers/residency clinics to encourage staff and resident involvement in the program. Staff members who work as part of the quality team are eligible to receive incentive payments for attendance of the regional collaborative meetings.

Nurse Care Management

Before concluding the survey, respondents were asked if any of their patients were participating in nurse care management; 61 percent answered “yes.” Overall, seventy-five percent of these respondents stated they believe that the nurse care managers are having a positive impact on their patients (the figure was a nearly identical 76 percent among practices surveyed during the SFY 2012 evaluation period).

Overall, of the practices with patients in nurse care management, 60 percent also reported being consulted by a nurse care manager (the figure was 70 percent among practices surveyed during the SFY 2012 evaluation period). Although most of the practices had received reports and requests for information from the nurse care managers, some did not consider this to be true consultation. Rather, these providers expected nurse care managers to work with them directly and collaboratively.

At the same time, some providers acknowledged it is difficult to allocate time to discuss a patient’s care in-person or via phone with the nurse care manager. These providers recommended that nurse care managers contact them at the start of the care management process to discuss patient care and goals and to facilitate care coordination. Once this has occurred, a monthly or quarterly written update on the status of their patients would suffice as a means of ongoing communication.

As discussed earlier in this report, some nurse care managers are initiating their own methods of collaborating with member’s providers, including accompanying members to their primary care provider visits and communicating via phone or in person with providers on members’ care and treatment plans.

The OHCA’s Health Access Network (HAN) pilot program works with providers to coordinate and improve the quality of care for SoonerCare members. During SFY 2011, the OHCA and Telligen began exploring opportunities to facilitate collaboration and resources among nurse care managers, practice facilitators and participating providers. The program was expanded to include more practices during SFY 2012.

Summary of Key Findings

Providers who have completed the onsite portion of practice facilitation view the SoonerCare HMP very favorably. The most common reason cited for participating was to improve care management of patients with chronic conditions. Eighty-seven percent of respondents credited the program with helping them to achieve this objective.

When asked to cite specific changes, providers were able offer examples, including conducting more thorough foot and eye exams of diabetic patients; providing more information to patients on how to self-manage their disease; and doing a better job of documenting patient care.

Overall, 95 percent of providers described themselves as very or somewhat satisfied with their experiences in the program. Ninety-one percent would recommend the program to a colleague. A strong majority of providers (75 percent) credited nurse care managers with having a positive impact on their patients.

Quality of Care Analysis

Telligen practice facilitators provide one-on-one in-office assistance to OHCA-designated primary care providers. Participating practice facilitation sites receive training on how to use the CareMeasures™ Data Registry on an ongoing basis. The program is voluntary and is offered at no charge to the provider. Practice facilitators assist primary care providers and their office staffs to improve their efficiency and quality of care through the following activities:

- Reviewing claims and clinical records using a standardized audit tool to assess the providers' current level of performance on a set of standardized quality measures;
- Assessing primary care providers' care processes for potential improvement;
- Developing and implementing educational and other interventions based on the results of the audit tool and care process assessment;
- Providing quarterly continuing practice evaluation reports to primary care providers including, but not limited to, SoonerCare HMP enrollee participation and medical regimen adherence and performance against selected QM/QI measures; and
- Evaluating such interventions for acceptance, response and effectiveness and documenting successful interventions for inclusion in OHCA's Practice Facilitation Procedure Manual.

Practice facilitators spend several weeks onsite at newly assigned practices. Four days per week are spent at the practice. The fifth day is reserved for preparing, planning, reporting and following-up with other practices in the facilitator's caseload that have already completed the onsite facilitation.

During the initial time onsite, the practice facilitator observes office processes and flows, meets with the provider(s) and key staff to determine goals and action plans and assists the office in completing a clinic self-assessment. The practice facilitator also audits charts of chronic disease patients to look for gaps in care compared to evidence-based care guidelines. Based on the findings of the assessments and audit the practice facilitator works with the provider(s) and the office staff to improve practice efficiency, effectiveness and patient outcomes.

All providers engaged in practice facilitation also receive training in the CareMeasures™ Data Registry. CareMeasures™ is an electronic patient registry used by office personnel to securely collect clinical data on patients with chronic conditions selected by the practice for quality measurement purposes. The information they enter is uploaded to Telligen, where it is used to track provider quality of care using National Quality Forum-endorsed quality of care measures.

In SFY 2012, all active provider sites that participated in practice facilitation reported their monthly results for CareMeasures™. As was the case for the previous two annual reports,

practices focused only on those measures they could commit to improve by implementing quality improvement processes. At a minimum, each site reported on at least one diagnosis and its corresponding measures.

Quality of Care Analysis Methodology

Telligen generates monthly reports on the number of patients entered into the registry, by practice site and diagnostic category, and the portion in compliance with CareMeasures™ clinical measures. The reports include 29 diagnosis-specific clinical measures, six population-wide prevention measures and eight tobacco-cessation measures. (Please refer to Appendix E for a listing of the measures and their definitions.)

PHPG compared the final Telligen SFY 2012 report, containing data for June 2012, to the same reports for June 2011 (12-month longitudinal analysis) and June 2009 (36-month longitudinal analysis). The comparison to June 2009 was intended to identify quality of care trends going back to the start of the program.

In addition, PHPG's subcontractor APS calculated compliance percentages for the entire SoonerCare Medicaid population to serve as a HEDIS-like comparison, where applicable, to CareMeasures™ for the SFY 2012 period. To match the selected portion of the HMP population, APS selected SoonerCare members who had at least six months of enrollment in SFY 2012. APS used HEDIS guidelines but substituted the state fiscal year period for the standard HEDIS calendar year cycle.

Finally, PHPG performed a separate analysis of 18 practices identified by the OHCA as "high buy-in" participants, meaning they had demonstrated a higher than average level of interest and commitment to the program. PHPG compared compliance percentages for these practices to other sites to document any differences in performance during SFY 2012.

PHPG excluded any practice comparisons for a measure where there were fewer than five patients in the denominator, as the findings for such a small patient base were not considered reliable. In such cases, all other data is presented for informational purposes only.

Findings for the diagnosis-specific measures are presented below, followed by the prevention and tobacco cessation measures. For each measure, the first comparison displayed is the year-over-year compliance percentages, followed by the SFY 2009 to SFY 2012 comparison and then the high buy-in practices analysis, where applicable.

Asthma

CareMeasures™ includes two asthma measures:

- ASTHMA-01³⁹ - Percent of patients ages 5 to 40 with a diagnosis of asthma who were evaluated during at least one office visit within 12 months for the frequency (numeric) of daytime and nocturnal asthma symptoms
- ASTHMA-02 - Percent of patients ages 5 to 40 with a diagnosis of mild, moderate or severe persistent asthma who were prescribed either the preferred long-term control medication (inhaled corticosteroid) or an acceptable alternative treatment

Longitudinal Analysis 2011 - 2012

The compliance rate for individuals who had at least one office visit (ASTHMA-01) within 12 months averaged 61.4 percent in SFY 2012 (see exhibit 3-9), which was down 7.1 percentage points from SFY 2011.

The compliance rate for corticosteroid prescriptions (ASTHMA-02) increased significantly, rising from 52.5 percent in SFY 2011 to 100 percent in SFY 2012. The improvement in this measure may be partly due to improved reporting but also is likely the result of a greater focus on asthma control during patient visits.

Exhibit 3-9 – CareMeasures™ Asthma Clinical Measures 2011 - 2012

Measure	June 2011 Findings	June 2012 Findings	2011-2012 Comparison	2012 SoonerCare Medicaid Findings Percent Compliant
	Percent Compliant	Percent Compliant	% Point Change	
1. Percent of patients 5 to 40 with a diagnosis of asthma who were evaluated during at least one office visit within 12 months for the frequency (numeric) of daytime and nocturnal asthma symptoms	68.5%	61.4%	(7.1%)	N/A
2. Percent of patients 5 to 40 with a diagnosis of mild, moderate or severe persistent asthma who were prescribed either the preferred long-term control medication (inhaled corticosteroid) or an acceptable alternative treatment	52.5%	100.0%	47.5%	N/A

³⁹ The measure identifiers (e.g., ASTHMA-01) are included in the report for reader reference and do not necessarily correspond to how the measures are designated by Telligen within the CareMeasures™ registry.

Longitudinal Analysis 2009 - 2012

The compliance rate on both measures rose dramatically between SFY 2009 and SFY 2012. Compliance on the evaluation measure (ASTHMA-01) increased by 49.6 percentage points while corticosteroid prescription compliance (ASTHMA-02) increased by 80.3 percentage points (see exhibit 3-10).

It should be noted that the two asthma measures were added to the CareMeasures™ reporting system in spring 2009, which reduced the number of reporting months and likely lowered the SFY 2009 reported compliance rate. Even taking this into account, the findings demonstrate a significant improvement in compliance among practice facilitation sites.

Exhibit 3-10 – CareMeasures™ Asthma Clinical Measures 2009 - 2012

	June 2009 Findings	June 2012 Findings	2009-2012 Comparison
Measure	Percent Compliant	Percent Compliant	% Point Change
1. Percent of patients 5 to 40 with a diagnosis of asthma who were evaluated during at least one office visit within 12 months for the frequency (numeric) of daytime and nocturnal asthma symptoms	11.8%	61.4%	49.6%
2. Percent of patients 5 to 40 with a diagnosis of mild, moderate or severe persistent asthma who were prescribed either the preferred long-term control medication (inhaled corticosteroid) or an acceptable alternative treatment	19.7%	100.0%	80.3%

High Buy-in Practices

The compliance rate for individuals who had at least one office visit within 12 months was slightly lower for the high buy-in practices than those of other practices in SFY 2012. The compliance rate for asthma individuals who were prescribed medication in SFY 2012 was 100 percent for both high buy-in practices and all other practices (see exhibit 3-11).

Exhibit 3-11 – CareMeasures™ Asthma Clinical Measures - High Buy-in Practices

Measure	June 2012 Findings – All Other	June 2012 Findings – High Buy-in	High Buy-in to All Other Comparison
	Percent Compliant	Percent Compliant	% Point Change
1. Percent of patients 5 to 40 with a diagnosis of asthma who were evaluated during at least one office visit within 12 months for the frequency (numeric) of daytime and nocturnal asthma symptoms	62.7%	60.4%	(2.3%)
2. Percent of patients 5 to 40 with a diagnosis of mild, moderate or severe persistent asthma who were prescribed either the preferred long-term control medication (inhaled corticosteroid) or an acceptable alternative treatment	100.0%	100.0%	0.0%

Chronic Obstructive Pulmonary Disease (COPD)

Two measures for chronic obstructive pulmonary disease (COPD) were reported in SFY 2012 by a sample of the SoonerCare practices:

- COPD-01 - Percentage of patients ages 18 years and older with a diagnosis of chronic obstructive pulmonary disease (COPD) who had spirometry evaluation results documented
- COPD-02 - Percentage of patients ages 18 years and older with a diagnosis of chronic obstructive pulmonary disease (COPD), who have an FEV1/FVC less than 70 percent and have symptoms, who were prescribed an inhaled bronchodilator

Longitudinal Analysis 2011 - 2012

Both COPD measures were implemented for practices in SFY 2010, resulting in small patient sample sizes in SFY 2010 and 2011. In SFY 2012, both measures demonstrated improvement in sample size as well as findings when compared to SFY 2011.

The compliance rate for patients who had spirometry results documented (COPD-01) in SFY 2012 increased to 44.3 percent from 22.7 percent in SFY 2011 (see exhibit 3-12). The SFY 2012 rate was well above the 32.0 percent Medicaid HMO National Committee for Quality Assurance (NCQA) HEDIS measure result for adults 40 years of age and older with a new diagnosis or newly active COPD who received spirometry testing to confirm the diagnosis (2012 results for 2011 measurement year).

Exhibit 3-12 – CareMeasures™ Chronic Obstructive Pulmonary Disease Clinical Measures 2011 - 2012

Measure	June 2011 Findings	June 2012 Findings	2011-2012 Comparison	2012 SoonerCare Medicaid Findings Percent Compliant
	Percent Compliant	Percent Compliant	% Point Change	
1. Spirometry Evaluation	22.7%	44.3%	21.6%	N/A
2. Bronchodilator Therapy	4.8%	91.7%	86.9%	N/A

The common criterion recommended for diagnosis of COPD is demonstration of “progressive irreversible airway obstruction” on spirometry. The Global Initiative for Chronic Obstructive Pulmonary Disease (GOLD) has recommended spirometry as the standard for diagnosis of

COPD. Proper diagnosis leads to better COPD treatment, which should lead to less comorbid disease, physical dysfunction, and death from COPD.

Although the SFY 2012 results represented a significant improvement over SFY 2011, and exceeded the national compliance rate, compliance still was below 50 percent. According to GOLD, the challenges with this measure have been that spirometry is not widely available, spirometric test results are not always optimally recorded and physicians continue to diagnose COPD solely on symptoms. As a result, there needs to be continued focus on educating practices on the importance of using spirometry for initial diagnosis and ongoing management of COPD as well as a review and reinforcement of documentation requirements.

The compliance rate for patients who were prescribed an inhaled bronchodilator (COPD-02) in SFY 2012 was a near universal 91.7 percent. The reported rate in SFY 2011 was only 4.8 percent, which suggests improvements both in compliance and in reporting.

Longitudinal Analysis 2009 - 2012

PHPG excluded practice comparisons between high buy-in and other practices for COPD as both COPD measures were implemented for practices in SFY 2010.

High Buy-in Practices

PHPG excluded practice comparisons between high buy-in and other practices for COPD as no high buy-in practices reported on these measures in SFY 2012.

Congestive Heart Failure (CHF)

CareMeasures™ includes five congestive heart failure (HF) measures:

- HF-01 - Percent of patients with congestive heart failure with quantitative or qualitative results of left ventricular function assessment recorded
- HF-02 - Percent of patients 18 and older with diagnosis of HF and left ventricular systolic dysfunction (LVSD) who were prescribed ACE inhibitor or ARB therapy
- HF-03 - Percent of patients 18 and older with diagnosis of HF who had weight measurement recorded
- HF-04 - Percent of patients with HF who were provided with patient education on disease management and health behavior changes during one or more visit(s)
- HF-05 - Percent of patients 18 and older with diagnosis of HF who also have LVSD and who were prescribed beta-blocker therapy

Longitudinal Analysis 2011 - 2012

PHPG excluded practice comparisons for the HF measures in SFY 2011 since there were fewer than five patients in the denominator. The same is true for two of the five measures in SFY 2012, prescribed ACE inhibitor or ARB therapy (HF-02) and prescribed beta-blocker therapy (HF-05). The remaining compliance rates for SFY 2012 are listed for informational purposes only (see exhibit 3-13).

Findings for one CareMeasure™ (HF-01 - recording of left ventricular ejection fraction) are provided for the entire SoonerCare Medicaid population for informational purposes only. The results for practice facilitation sites on this measure significantly exceed results for the entire SoonerCare population, likely due to a combination of better documentation and actual higher compliance.

Exhibit 3-13 – CareMeasures™ Congestive Heart Failure Clinical Measures 2011 - 2012

Measure	June 2011 Findings	June 2012 Findings	2011-2012 Comparison	2012 SoonerCare Medicaid Findings Percent Compliant
	Percent Compliant	Percent Compliant	% Point Change	
1. Percent of patients with HF with quantitative or qualitative results of left ventricular function assessment recorded	N/A	45.5%	N/A	3.4%

Measure	June 2011 Findings	June 2012 Findings	2011-2012 Comparison	2012 SoonerCare Medicaid Findings Percent Compliant
	Percent Compliant	Percent Compliant	% Point Change	
2. Percent of patients 18 and older with diagnosis of HF and LVSD who were prescribed ACE inhibitor or ARB therapy	N/A	N/A	N/A	N/A
3. Percent of patients 18 and older with diagnosis of HF who had weight measurement recorded	N/A	93.3%	N/A	N/A
4. Percent of patients with HF who were provided with patient education on disease management and health behavior changes during one or more visit(s)	N/A	0.0%	N/A	N/A
5. Percent of patients 18 and older with diagnosis of HF who also have LVSD and who were prescribed beta-blocker therapy	N/A	N/A	N/A	N/A

Longitudinal Analysis 2009 - 2012

PHPG excluded practice comparisons for two of the HF measures in SFY 2012 since there were fewer than five patients in the denominator (see exhibit 3-14). For the three remaining measures, one (HF-01) showed a significant improvement over SFY 2009 and another (HF-03) was slightly higher, with compliance exceeding 90 percent in both years. The third measure (HF-04) registered a decline.

Exhibit 3-14 – CareMeasures™ Congestive Heart Failure Clinical Measures 2009 - 2012

Measure	June 2009 Findings	June 2012 Findings	2009-2012 Comparison
	Percent Compliant	Percent Compliant	% Point Change
1. Percent of patients with HF with quantitative or qualitative results of left ventricular function assessment recorded	18.2%	45.5%	27.3%
2. Percent of patients 18 and older with diagnosis of HF and LVSD who were prescribed ACE inhibitor or ARB therapy	69.2%	N/A	N/A

	June 2009 Findings	June 2012 Findings	2009-2012 Comparison
Measure	Percent Compliant	Percent Compliant	% Point Change
3. Percent of patients 18 and older with diagnosis of HF who had weight measurement recorded	91.2%	93.3%	2.1%
4. Percent of patients with HF who were provided with patient education on disease management and health behavior changes during one or more visit(s)	16.3%	0.0%	(16.3%)
5. Percent of patients 18 and older with diagnosis of HF who also have LVSD and who were prescribed beta-blocker therapy	37.5%	N/A	N/A

High Buy-in Practices

PHPG excluded practice comparisons between high buy-in and other practices for congestive heart failure since there were fewer than five patients in the denominator.

Coronary Artery Disease (CAD)

CareMeasures™ includes nine coronary artery disease measures:

- CAD-01 - Percent of patients 18 and older with diagnosis of CAD who were prescribed oral antiplatelet therapy
- CAD-02 - Percent of patients 18 and older with CAD who were prescribed a lipid-lowering therapy
- CAD-03 - Percent of patients 18 and older with a diagnosis of CAD and prior MI who were prescribed beta-blocker therapy
- CAD-04 - Percent of patients 18 and older with CAD who had blood pressure < 140/90 mmHg
- CAD-05 - Percentage of patients ages 18 years and older with a diagnosis of coronary artery disease (CAD) who received at least one lipid profile within 12 months
- CAD-06 - Percent of patients between 18 and 75 with CAD who have optimally managed modifiable risk factors (LDL, tobacco non-use, blood pressure control, aspirin usage)
- CAD-07 - Percent of patients 18 and older with CAD who also have DM and/or LVSD who were prescribed ACE inhibitor or ARB therapy
- CAD-08 - Percent of patients 18 and older with CAD who were evaluated for both level of activity and angina symptoms during one or more office visits
- CAD-09 - Percent of patients 18 and older with CAD who received at least one lipid profile during last year and LDL-C < 100

Longitudinal Analysis 2011 - 2012

PHPG excluded practice comparisons for six of the nine CAD measures in SFY 2011 since there were fewer than five patients in the denominator. The corresponding compliance rates for SFY 2012 are listed for informational purposes only.

Only one practice site reported on CAD-06 in SFY 2011 and SFY 2012, with a sample of four patients in SFY 2011 and 12 patients in SFY 2012. In SFY 2012, there was no compliance with the CAD-06 measure due to challenges with medical record documentation and organization. The assigned practice facilitator has subsequently worked with the provider and office staff to create a consistent, legible and reliable medical record in order to document data for future reports.

The results for the remaining three measures improved from SFY 2011 to SFY 2012:

- The percent of patients who were prescribed oral antiplatelet therapy in SFY 2012 (CAD-01) increased to 91.7 percent from 42.9 percent in SFY 2011
- The percent of patients who had a blood pressure reading less than 140/90 mmHg (CAD-04) increased slightly to 53.3 percent in SFY 2012 from 50.0 percent in SFY 2011
- The percent of patients who have CAD who also have DM and/or LVSD (CAD-07) and were prescribed ACE inhibitor or ARB therapy also increased modestly to 71.4 percent in SFY 2012 from 66.7 percent in SFY 2011

Findings for two CareMeasures™ (CAD-02 and CAD-03) are provided for the entire SoonerCare Medicaid population for informational purposes only (see exhibit 3-15).

Exhibit 3-15 – CareMeasures™ Coronary Artery Disease Clinical Measures 2011 - 2012

Measure	June 2011 Findings	June 2012 Findings	2011-2012 Comparison	2012 SoonerCare Medicaid Findings Percent Compliant
	Percent Compliant	Percent Compliant	% Point Change	
1. Percent of patients 18 and older with diagnosis of CAD who were prescribed oral antiplatelet therapy	42.9%	91.7%	48.8%	N/A
2. Percent of patients 18 and older with CAD who were prescribed a lipid-lowering therapy	N/A	58.3%	N/A	35.8%
3. Percent of patients 18 and older with a diagnosis of CAD and prior MI who were prescribed beta-blocker therapy	N/A	37.5%	N/A	58.5%
4. Percent of patients 18 and older with CAD who had blood pressure < 140/90 mmHg	50.0%	53.3%	3.3%	N/A
5. Percent of patients 18 and older with CAD who has a lipid profile performed	N/A	25.0%	N/A	N/A
6. Percent of patients between 18 and 75 with CAD who have optimally managed modifiable risk factors (LDL, tobacco non-use, blood pressure control, aspirin usage)	N/A	0.0%	N/A	N/A
7. Percent of patients 18 and older with CAD who also have DM and/or LVSD who were prescribed ACE inhibitor or ARB therapy	66.7%	71.4%	4.7%	N/A

	June 2011 Findings	June 2012 Findings	2011-2012 Comparison	2012 SoonerCare Medicaid Findings Percent Compliant
Measure	Percent Compliant	Percent Compliant	% Point Change	
8. Percent of patients 18 and older with CAD who were evaluated for both level of activity and angina symptoms during one or more office visits	N/A	100.0%	N/A	N/A
9. Percent of patients 18 and older with CAD who received at least one lipid profile during last year and LDL-C < 100	N/A	8.3%	N/A	N/A

Longitudinal Analysis 2009 - 2012

PHPG excluded practice comparisons for CAD-05 since this measure was implemented in SFY 2010. Four measures improved from SFY 2009 to SFY 2012:

- The percent of individuals with a diagnosis of CAD who were prescribed oral antiplatelet therapy (CAD-01) increased from 61.0 percent to 91.7 percent
- The percent of patients 18 and older with CAD who were prescribed a lipid-lowering therapy (CAD-02) increased from 39.3 percent to 58.3 percent
- The percent of patients with CAD who also have DM and/or LVSD who were prescribed ACE inhibitor or ARB therapy (CAD-07) increased from 64.4 percent to 71.4 percent
- The percent of patients were evaluated for both level of activity and angina in SFY 2012 rose dramatically from 34.1 percent to 100.0 percent (full compliance)

Three other measures (CAD-03, CAD-04 and CAD-09) declined from SFY 2009 to SFY 2012. The primary reason for the decline was the reduction in the number of practices that reported on CAD measures between 2009 and 2012 (see exhibit 3-16).

Exhibit 3-16 – CareMeasures™ Coronary Artery Disease Clinical Measures 2009 – 2012

Measure	June 2009 Findings	June 2012 Findings	2009-2012 Comparison
	Percent Compliant	Percent Compliant	% Point Change
1. Percent of patients 18 and older with diagnosis of CAD who were prescribed oral antiplatelet therapy	61.0%	91.7%	30.7%
2. Percent of patients 18 and older with CAD who were prescribed a lipid-lowering therapy	39.3%	58.3%	19.0%
3. Percent of patients 18 and older with a diagnosis of CAD and prior MI who were prescribed beta-blocker therapy	59.4%	37.5%	(21.9%)
4. Percent of patients 18 and older with CAD who had blood pressure < 140/90 mmHg	65.1%	53.3%	(11.8%)
5. Percent of patients 18 and older with CAD who has a lipid profile performed	N/A	25.0%	N/A
6. Percent of patients between 18 and 75 with CAD who have optimally managed modifiable risk factors (LDL, tobacco non-use, blood pressure control, aspirin usage)	0.0%	0.0%	0.0%
7. Percent of patients 18 and older with CAD who also have DM and/or LVSD who were prescribed ACE inhibitor or ARB therapy	64.4%	71.4%	7.0%
8. Percent of patients 18 and older with CAD who were evaluated for both level of activity and angina symptoms during one or more office visits	34.1%	100.0%	65.9%
9. Percent of patients 18 and older with CAD who received at least one lipid profile during last year and LDL-C < 100	26.6%	8.3%	(18.3%)

High Buy-in Practices

PHPG excluded practice comparisons between high buy-in and other practices for coronary artery disease since there were no high buy-in practices that reported on these measures.

Diabetes Mellitus (DM)

CareMeasures™ includes nine diabetes mellitus (DM) measures:

- DM-01 - Percent of patients 18 to 75 with DM receiving one or more A1c test(s) per year
- DM-02 - Percent of patients 18 to 75 with DM who had most recent hemoglobin A1c greater than 9 percent
- DM-03 - Percent of patients 18 to 75 with DM who had most recent blood pressure in control (< 140/80 mmHg)
- DM-04 - Percent of patients 18 to 75 with DM receiving at least one lipid profile (or all component tests)
- DM-05 - Percent of patients 18 to 75 with DM with most recent LDL-C < 130 mg/dl
- DM-06 - Percent of patients 18 to 75 with DM who had most recent LDL-C level in control (less than 100 mg/dl)
- DM-07 - Percent of patients 18 to 75 with DM who received urine protein screening or medical attention for nephropathy during at least one office visit within 12 months
- DM-08 - Percent of patients 18 to 75 with diagnosis of DM who had dilated eye exam
- DM-09 - Percent of patients 18 to 75 with DM who had a foot exam

Longitudinal Analysis 2011 - 2012

Diabetes compliance rates continue to vary greatly across measures. Five of the nine measures demonstrated at least a slight increase in compliance from SFY 2011 to SFY 2012, but two of these measures – percentage of patients with diabetes with most recent LDL-C < 130 mg/dl (DM-05) and percentage of patients who had a dilated eye exam (DM-07) – remained below 50 percent. The 2012 (2011 measurement year) Medicaid HMO NCQA HEDIS measure result for the percent of patients 18 to 75 with diagnosis of DM who had a dilated eye exam was 53.3 percent.

Continued emphasis should be placed on practices to obtain the required cholesterol screening during the measurement period. For results that exceed 130 mg/dl, patients should receive ongoing education about the importance of diet, exercise and health risk factors.

The low rate for dilated eye exams is attributable to several factors, including that eyeglasses are not a covered benefit for adults under SoonerCare, causing some patients to opt out of the exam. Eye exam reports also can be difficult to obtain from the rendering provider, thereby reducing the reported compliance rate.

To address the challenges, Telligen has had ongoing discussions with regional collaboratives to educate providers about access to alternative sources for eyeglasses. Telligen also has assisted providers in initiating a referral process and obtaining eye exam reports after the referral.

Four of the measures declined from SFY 2011 to SFY 2012, with the most significant drop occurring in the percent of patients 18 to 75 with DM who had a recent hemoglobin A1c less than nine percent (DM-02).

Continued emphasis for practices should be placed on patient education regarding the importance of diet, exercise and health risk factors for diabetes. According to the Centers for Disease Control and Prevention (CDC), reducing A1c blood test results by one percentage point reduces the risk of microvascular complications (eye, kidney and nerve diseases) by as much as 40 percent.

Three CareMeasures™ (DM-01, DM-06 and DM-07) were compared to the entire SoonerCare Medicaid population. The compliance percentages for all three measures were found to be greater in the SFY 2012 SoonerCare HMP population. (see exhibit 3-17).

Exhibit 3-17 – CareMeasures™ Diabetes Mellitus Clinical Measures 2011 - 2012

Measure	June 2011 Findings	June 2012 Findings	2011-2012 Comparison	2012 SoonerCare Medicaid Findings Percent Compliant
	Percent Compliant	Percent Compliant	% Point Change	
1. Percent of patients 18 to 75 with DM receiving one or more A1c test(s) per year	79.0%	79.6%	0.6%	76.1%
2. Percent of patients 18 to 75 with DM who had most recent hemoglobin A1c less than 9 percent	81.4%	59.5%	(21.9%)	N/A
3. Percent of patients 18 to 75 with DM who had most recent blood pressure in control (<140/80 mmHg)	47.8%	67.8%	20.0%	N/A
4. Percent of patients 18 to 75 with DM receiving at least one lipid profile (or all component tests)	64.4%	62.7%	(1.7%)	N/A
5. Percent of patients 18 to 75 with DM with most recent LDL-C < 130 mg/dl	46.8%	47.1%	0.3%	N/A
6. Percent of patients 18 to 75 with DM who had most recent LDL-C level in control (less than 100 mg/dl)	30.7%	30.6%	(0.1%)	N/A

Measure	June 2011 Findings	June 2012 Findings	2011-2012 Comparison	2012 SoonerCare Medicaid Findings Percent Compliant
	Percent Compliant	Percent Compliant	% Point Change	
7. Percent of patients 18 to 75 with DM who received urine protein screening or medical attention for nephropathy during at least one office visit within 12 months	56.1%	52.7%	(3.4%)	30.2%
8. Percent of patients 18 to 75 with diagnosis of DM who had dilated eye exam	20.8%	37.7%	16.9%	30.5%
9. Percent of patients 18 to 75 with DM who had a foot exam	50.6%	52.4%	1.8%	N/A

Longitudinal Analysis 2009 - 2012

Compliance for seven of the nine measures increased from SFY 2009 to SFY 2012 (see exhibit 3-18). The greatest increase was registered in DM-03, the percent of patients 18 to 75 with DM who had most recent blood pressure in control (<140/80 mmHg).

Exhibit 3-18 – CareMeasures™ Diabetes Mellitus Clinical Measures 2009 - 2012

Measure	June 2009 Findings	June 2012 Findings	2009-2012 Comparison
	Percent Compliant	Percent Compliant	% Point Change
1. Percent of patients 18 to 75 with DM receiving one or more A1c test(s) per year	73.7%	79.6%	5.9%
2. Percent of patients 18 to 75 with DM who had most recent hemoglobin A1c less than 9 percent	82.8%	59.5%	(23.3%)
3. Percent of patients 18 to 75 with DM who had most recent blood pressure in control (<140/80 mmHg)	45.0%	67.8%	22.8%
4. Percent of patients 18 to 75 with DM receiving at least one lipid profile (or all component tests)	58.3%	62.7%	4.4%
5. Percent of patients 18 to 75 with DM with most recent LDL-C < 130 mg/dl	46.4%	47.1%	0.7%

	June 2009 Findings	June 2012 Findings	2009-2012 Comparison
Measure	Percent Compliant	Percent Compliant	% Point Change
6. Percent of patients 18 to 75 with DM who had most recent LDL-C level in control (less than 100 mg/dl)	32.0%	30.6%	(1.4%)
7. Percent of patients 18 to 75 with DM who received urine protein screening or medical attention for nephropathy during at least one office visit within 12 months	45.0%	52.7%	7.7%
8. Percent of patients 18 to 75 with diagnosis of DM who had dilated eye exam	16.5%	37.7%	21.2%
9. Percent of patients 18 to 75 with DM who had a foot exam	34.3%	52.4%	18.1%

High Buy-in Practices

The high buy-in practice compliance rate exceeded the rate for other practices on all nine diabetes measures (see exhibit 3-19). For this comparison set, the hypothesis that high buy-in practices have better results holds true.

Exhibit 3-19 – CareMeasures™ Diabetes Mellitus Clinical Measures – High Buy-in Practices

	June 2012 Findings – All Other	June 2012 Findings – High Buy-in	High Buy-in to All Other Comparison
Measure	Percent Compliant	Percent Compliant	% Point Change
1. Percent of patients 18 to 75 with DM receiving one or more A1c test(s) per year	78.3%	82.6%	4.3%
2. Percent of patients 18 to 75 with DM who had most recent hemoglobin A1c less than 9 percent	59.0%	60.8%	1.8%
3. Percent of patients 18 to 75 with DM who had most recent blood pressure in control (<140/80 mmHg)	66.0%	72.0%	6.0%
4. Percent of patients 18 to 75 with DM receiving at least one lipid profile (or all component tests)	60.8%	67.0%	6.2%

	June 2012 Findings – All Other	June 2012 Findings – High Buy-in	High Buy-in to All Other Comparison
Measure	Percent Compliant	Percent Compliant	% Point Change
5. Percent of patients 18 to 75 with DM with most recent LDL-C < 130 mg/dl	46.0%	49.6%	3.6%
6. Percent of patients 18 to 75 with DM who had most recent LDL-C level in control (less than 100 mg/dl)	29.2%	33.7%	4.5%
7. Percent of patients 18 to 75 with DM who received urine protein screening or medical attention for nephropathy during at least one office visit within 12 months	50.7%	57.1%	6.4%
8. Percent of patients 18 to 75 with diagnosis of DM who had dilated eye exam	36.1%	41.4%	5.3%
9. Percent of patients 18 to 75 with DM who had a foot exam	47.5%	63.3%	15.8%

Hypertension (HTN)

CareMeasures™ includes two hypertension (HTN) measures:

- HTN-01 -Percent of patients with blood pressure measurement recorded among all patient visits for patients 18 and older with diagnosed HTN
- HTN – 02 - Percent of patients 18 and older who had a diagnosis of HTN and whose blood pressure was adequately controlled (< 140/90 mmHg) during the measurement year

Longitudinal Analysis 2011 - 2012

The compliance rate for both hypertension measures remained nearly constant from SFY 2011 to SFY 2012 (see exhibit 3-20). The compliance rate for recorded blood pressure measurements (HTN-01) was almost 100 percent in both years. The percent of patients with adequate blood pressure control (HTN-02) was lower at 66.2 percent, but surpassed the 2012 Medicaid HMO NCQA HEDIS rate of 56.8 percent.

Exhibit 3-20 – CareMeasures™ Hypertension Clinical Measures 2011 - 2012

Measure	June 2011 Findings	June 2012 Findings	2011-2012 Comparison	2012 SoonerCare Medicaid Findings
	Percent Compliant	Percent Compliant	% Point Change	Percent Compliant
1. Percent of patients with blood pressure measurement recorded among all patient visits for patients 18 and older with diagnosed HTN	98.7%	98.6%	(0.1%)	N/A
2. Percent of patients 18 and older who had a diagnosis of HTN and whose blood pressure was adequately controlled (< 140/90 mmHg) during the measurement year	66.3%	66.2%	(0.1%)	N/A

Longitudinal Analysis 2009 - 2012

The compliance rate for both hypertension measures also remained fairly constant from SFY 2009 to SFY 2012 (see exhibit 3-21), with a modest increase observed in the compliance rate for adequate blood pressure control (HTN-02).

Exhibit 3-21 – CareMeasures™ Hypertension Clinical Measures 2009 - 2012

Measure	June 2009 Findings	June 2012 Findings	2009-2012 Comparison
	Percent Compliant	Percent Compliant	% Point Change
1. Percent of patients with blood pressure measurement recorded among all patient visits for patients 18 and older with diagnosed HTN	99.7%	98.6%	(1.1%)
2. Percent of patients 18 and older who had a diagnosis of HTN and whose blood pressure was adequately controlled (< 140/90 mmHg) during the measurement year	62.8%	66.2%	3.4%

High Buy-in Practices

There were nearly universal compliance rates observed among both the general and high buy-in practice facilitation groups on measure HTN-01 (see exhibit 3-22). The high buy-in practice compliance rate exceeded the rate for other practices on the adequate blood pressure control measure (HTN-02).

Exhibit 3-22 – CareMeasures™ Hypertension Clinical Measures – High Buy-in Practices

Measure	June 2012 Findings – All Other	June 2012 Findings – High Buy-in	High Buy-in to All Other Comparison
	Percent Compliant	Percent Compliant	% Point Change
1. Percent of patients with blood pressure measurement recorded among all patient visits for patients 18 and older with diagnosed HTN	98.9%	98.0%	(0.9%)
2. Percent of patients 18 and older who had a diagnosis of HTN and whose blood pressure was adequately controlled (< 140/90 mmHg) during the measurement year	63.5%	71.4%	7.9%

Prevention

CareMeasures™ includes six prevention measures:

- PC-01 - Percent of women 50 to 69 who had a mammogram to screen for breast cancer within 24 months
- PC-02 - Percent of patients 50 to 80 who received the appropriate colorectal cancer screening
- PC-03 - Percent of patients 18 and older who received an influenza vaccination during the measurement period
- PC-04 - Percent of patients 18 and older who have ever received a pneumococcal vaccine
- PC-05 - Percent of patients identified as tobacco users who received cessation intervention during the measurement period
- PC-06 - Percentage of patients ages 18 years and older with a calculated BMI in the past six months or during the current visit documented in the medical record and if the most recent BMI is outside of normal parameters, a follow-up plan is documented

Longitudinal Analysis 2011 - 2012

Two prevention measures – breast cancer screening through mammography (PC-01) and BMI and follow-up (PC-06) – showed improvement from SFY 2011 to SFY 2012. The breast cancer screening through mammography rate increased slightly from 31.5 percent in SFY 2011 to 34.0 percent in SFY 2012. This was still below the 50.4 percent rate reported for the 2012 Medicaid HMO NCQA HEDIS measure (percentage of women 40–69 years of age who had at least one mammogram to screen for breast cancer in the past two years)⁴⁰.

Additional efforts should be made by practices to educate patients about the importance of mammogram screening and assisting patients to schedule mammograms on a routine basis. According to the 2012 U.S. Breast Cancer Statistics, mammography detects, on average, about 80 percent to 90 percent of breast cancers in women with no symptoms.

The compliance rate for BMI and follow-up improved from 28.5 percent in SFY 2012 to 49.4 percent in SFY 2012. According to the CDC, 68 percent of U.S. adults are overweight and 33 percent are considered obese. The U.S. Preventive Services Task Force recommends that clinicians screen all adult patients for obesity and offer counseling and behavioral interventions to promote weight loss in an effort to impact the national epidemic that obesity has become.

⁴⁰ 2012 State of Health Care Quality Report, National Committee for Quality Assurance, Focus on Obesity and Medicare Plan Improvement, Early Edition, October 2012.

The compliance rate for one measure, colorectal cancer screening (PC-02) was unchanged at a low 19.2 percent. The rates for two prevention measures decreased slightly from SFY 2011 to SFY 2012 - influenza vaccination (PC-03) and pneumonia vaccination (PC-04) – suggesting the need for improvement in preventive activities and patient education across all three measures.

There are two factors contributing to the low compliance rate for influenza vaccinations. First, purchasing the vaccine for adults is a high cost item for practices and they must place a vaccine order with their supplier well in advance of the influenza season. If they estimate incorrectly, they run the risk of being left with unused vaccine and an expense they cannot recover. Rather than run this risk, some providers are no longer offering influenza immunizations but instead referring patients to other immunization providers (e.g., county health departments and other community-based organizations).

The second factor relates to reporting by community-based organizations, including non-traditional provider sites such as Wal-Marts. If a community-based provider does not notify the member's primary care provider that it has delivered the immunization, and the information is not obtained through the state registry, it may not become known to the provider and subsequently documented in CareMeasures™.

One measure, tobacco users who received cessation intervention (PC-05), declined significantly from SFY 2011 to SFY 2012. The size of the decline (30.0 percentage points) suggests it may be a reporting issue, perhaps ironically due in part to education of providers by Telligen regarding what constitutes billable tobacco cessation counseling.

PHPG is conducting a parallel evaluation of a tobacco cessation practice facilitation initiative targeting prenatal care providers. In that evaluation, PHPG has observed that providers who previously billed for performance of only some of the components of the 5A Intervention Model (ask, advise, assess, assist, arrange) have become more conservative in their documentation and billing for cessation-related activities. These providers now understand that billing should only occur when all five components have been performed. A similar pattern may be emerging in the broader practice facilitation population.

Three measures (breast screening, colorectal cancer screening and pneumococcal vaccination) were compared to the entire SoonerCare Medicaid population. The compliance percentages for all measures were found to be greater in the SFY 2012 SoonerCare HMP population (see exhibit 3-23).

Exhibit 3-23 – CareMeasures™ Prevention Clinical Measures 2011 - 2012

Measure	June 2011 Findings	June 2012 Findings	2011-2012 Comparison	2012 SoonerCare Medicaid Findings
	Percent Compliant	Percent Compliant	% Point Change	Percent Compliant
1. Percent of women 50 to 69 who had a mammogram to screen for breast cancer within 24 months	31.5%	34.0%	2.5%	29.6%
2. Percent of patients 50 to 80 who received the appropriate colorectal cancer screening	19.2%	19.2%	0.0%	10.9%
3. Percent of patients 18 and older who received an influenza vaccination during the measurement period	17.0%	13.4%	(3.6%)	1.2%
4. Percent of patients 18 and older who have ever received a pneumococcal vaccine	10.5%	8.3%	(2.2%)	N/A
5. Percent of patients identified as tobacco users who received cessation intervention during the measurement period	33.8%	3.8%	(30.0%)	N/A
6. BMI and follow-up documented	28.5%	49.4%	20.9%	N/A

Longitudinal Analysis 2009 - 2012

Compliance rates for four of the six measures increased from SFY 2009 to SFY 2012, although all four remained below 50.0 percent. PHPG excluded practice comparisons for PC-05, BMI and follow-up, since this measure was implemented in SFY 2011.

Exhibit 3-24 – CareMeasures™ Prevention Clinical Measures 2009 - 2012

	June 2009 Findings	June 2012 Findings	2009-2012 Comparison
Measure	Percent Compliant	Percent Compliant	% Point Change
1. Percent of women 50 to 69 who had a mammogram to screen for breast cancer within 24 months	7.5%	34.0%	26.5%
2. Percent of patients 50 to 80 who received the appropriate colorectal cancer screening	2.5%	19.2%	16.7%
3. Percent of patients 18 and older who received an influenza vaccination during the measurement period	5.6%	13.4%	7.8%
4. Percent of patients 18 and older who have ever received a pneumococcal vaccine	2.5%	8.3%	5.8%
5. Percent of patients identified as tobacco users who received cessation intervention during the measurement period	7.5%	3.8%	(3.7%)
6. BMI and follow-up documented ⁴¹	N/A	49.4%	N/A

⁴¹ This is a new measure for SFY 2011. The measure is defined as the percentage of patients ages 18 years and older with a calculated BMI in the past six months or during the current visit documented in the medical record and if the most recent BMI is outside of normal parameters, a follow-up plan is documented.

High Buy-in Practices

The high buy-in practice compliance rate exceeded the rate for other practices on two prevention measures – screening for breast cancer through mammography (PC-01) and colorectal cancer screening (PC-02) (see exhibit 3-25). The compliance rate for the high buy-in practices was lower than those of all other practices in SFY 2012 for the influenza vaccination (PC-03) and BMI and follow-up (PC-06) measures.

PHPG excluded practice comparisons between high buy-in and other practices for two measures – pneumonia vaccination (PC-04) and tobacco users who received cessation intervention (PC-05) – since there were fewer than five patients in the denominator. The compliance rate for all other practices is listed for informational purposes only.

Exhibit 3-25 – CareMeasures™ Prevention Clinical Measures – High Buy-in Practices

Measure	June 2012 Findings – All Other	June 2012 Findings – High Buy-in	High Buy-in to All Other Comparison
	Percent Compliant	Percent Compliant	% Point Change
1. Percent of women 50 to 69 who had a mammogram to screen for breast cancer within 24 months	30.5%	42.0%	11.5%
2. Percent of patients 50 to 80 who received the appropriate colorectal cancer screening	18.7%	20.4%	1.7%
3. Percent of patients 18 and older who received an influenza vaccination during the measurement period	14.5%	9.3%	(5.2%)
4. Percent of patients 18 and older who have ever received a pneumococcal vaccine	10.0%	N/A	N/A
5. Percent of patients identified as tobacco users who received cessation intervention during the measurement period	3.8%	N/A	N/A
6. BMI and follow-up documented	53.1%	34.7%	(18.4%)

Tobacco Cessation

CareMeasures™ includes eight tobacco cessation measures (in addition to the measure reported under prevention):

- TOB-01 - Percent of patients 10 and older where inquiry about tobacco use was recorded
- TOB-02 - Percent of patients 10 and older who use tobacco where act of assessing the patient's readiness to quit tobacco use was recorded
- TOB-03 - Percent of patients 10 and older who use tobacco who were provided motivational treatment to quit tobacco use
- TOB-04 - Percent of patients 10 and older who use tobacco where assistance with developing a behavioral quit plan was provided
- TOB-05 - Percent of patients 18 and older who use tobacco where medication use was recommended to aid their quit plan
- TOB-06 - Percent of patients 10 and older who were former tobacco users where assistance with relapse prevention was provided
- TOB-07 - Percent of patients 10 and older who use tobacco where the act of advising the patient to quit tobacco use was recorded
- TOB-08 - Percent of patients 10 and older who use tobacco, and who are ready to quit using tobacco, where a follow up was scheduled

Longitudinal Analysis 2011 - 2012

Compliance rates for six of the eight tobacco cessation measures increased from SFY 2011 to SFY 2012 (see exhibit 3-26). There were modest declines in rates for two measures, medication use recommended to aid a quit plan (TOB-05) and a follow-up scheduled for those ready to quit (TOB-07).

According to Telligen, providers who are enrolled in the tobacco cessation measurement group are very diligent about “asking” about tobacco cessation during a patient history and physical. However, the providers tend to stop the tobacco cessation intervention process (5A Intervention Model) after this first “A”, instead of initiating the remainder of the process during routine office visits for acute issues. As noted in the prevention section, PHPG has found that providers who are educated on the 5A Intervention Model tend to become more conservative in submitting claims for performance of tobacco cessation counseling, doing so only when all five components have been performed.

Another factor contributing to the low compliance rate appears to be the data entry process into the CareMeasures™ registry. Some practice staff members contend the process is time consuming. In fact, a few practices elected to discontinue reporting on the tobacco measures because of the administrative burden associated with data entry.

Other practices have created worksheets for patient charts to be used by providers for the 5As but often, when tobacco cessation intervention is documented on the worksheet, the information is not entered into CareMeasures™ registry. The lack of data entry causes a decrease in reported (though not actual) measure compliance.

Practice facilitators who are entering data into the CareMeasures™ registry when performing chart audits often find that this data has not been recorded in the registry. Telligen continues to educate providers and staff on how to and the importance of entering the data into CareMeasures™.

Exhibit 3-26 – CareMeasures™ Tobacco Cessation Clinical Measures 2011 - 2012

Measure	June 2011 Findings	June 2012 Findings	2011-2012 Comparison	2012 SoonerCare Medicaid Findings Percent Compliant
	Percent Compliant	Percent Compliant	% Point Change	
1. Percent of patients 10 and older where inquiry about tobacco use was recorded	50.4%	63.9%	13.5%	N/A
2. Percent of patients 10 and older who use tobacco where act of assessing the patient’s readiness to quit tobacco use was recorded	39.0%	51.5%	12.5%	N/A

	June 2011 Findings	June 2012 Findings	2011-2012 Comparison	2012 SoonerCare Medicaid Findings Percent Compliant
Measure	Percent Compliant	Percent Compliant	% Point Change	
3. Percent of patients 10 and older who use tobacco where the act of advising the patient to quit tobacco use was recorded	41.5%	59.6%	18.1%	N/A
4. Percent of patients 10 and older who use tobacco where assistance with developing a behavioral quit plan was provided	63.6%	70.4%	6.8%	N/A
5. Percent of patients 18 and older who use tobacco where medication use was recommend to aid their quit plan	52.4%	37.0%	(15.4%)	N/A
6. Percent of patients 10 and older who use tobacco who were provided motivational treatment to quit tobacco use	51.9%	61.1%	9.2%	N/A
7. Percent of patients 10 and older who use tobacco, and who are ready to quit using tobacco, where a follow up was scheduled	27.3%	18.5%	(8.8%)	N/A
8. Percent of patients 10 and older who were former tobacco users where assistance with relapse prevention was provided	9.1%	28.6%	19.5%	N/A

Longitudinal Analysis 2009 – 2012

Compliance rates for two of the eight measures increased from SFY 2009 to SFY 2012 while the other six registered a decline (see exhibit 3-27). This suggests the need for more aggressive education targeted at providers in order to focus efforts on the 5As during office visits and follow-up with their patients. Education and continued chart audits also should be performed by Telligen to assess the quantity and quality of data entry for tobacco measures into the CareMeasures™ registry.

Exhibit 3-27 – CareMeasures™ Tobacco Cessation Clinical Measures 2009 - 2012

Measure	June 2009 Findings	June 2012 Findings	2009-2012 Comparison
	Percent Compliant	Percent Compliant	% Point Change
1. Percent of patients 10 and older where inquiry about tobacco use was recorded	77.1%	63.9%	(13.2%)
2. Percent of patients 10 and older who use tobacco where act of assessing the patient’s readiness to quit tobacco use was recorded	55.6%	51.5%	(4.1%)
3. Percent of patients 10 and older who use tobacco where the act of advising the patient to quit tobacco use was recorded	32.8%	59.6%	26.8%
4. Percent of patients 10 and older who use tobacco where assistance with developing a behavioral quit plan was provided	73.8%	70.4%	(3.4%)
5. Percent of patients 18 and older who use tobacco where medication use was recommend to aid their quit plan	50.0%	37.0%	(13.0%)
6. Percent of patients 10 and older who use tobacco who were provided motivational treatment to quit tobacco use	63.3%	61.1%	(2.2%)
7. Percent of patients 10 and older who use tobacco, and who are ready to quit using tobacco, where a follow up was scheduled	10.3%	18.5%	8.2%
8. Percent of patients 10 and older who were former tobacco users where assistance with relapse prevention was provided	57.1%	28.6%	(28.5%)

High Buy-in Practices

The compliance rate for the high buy-in practices was substantially higher than those of other practices in SFY 2012 on six of the eight tobacco measures (see exhibit 3-28).

Exhibit 3-28 – CareMeasures™ Tobacco Cessation Clinical Measures – High Buy-in Practices

Measure	June 2012 Findings – All Other	June 2012 Findings – High Buy-in	High Buy-in to All Other Comparison
	Percent Compliant	Percent Compliant	% Point Change
1. Percent of patients 10 and older where inquiry about tobacco use was recorded	78.0%	40.7%	(37.3%)
2. Percent of patients 10 and older who use tobacco where act of assessing the patient’s readiness to quit tobacco use was recorded	43.9%	79.3%	35.4%
3. Percent of patients 10 and older who use tobacco where the act of advising the patient to quit tobacco use was recorded	48.6%	100.0%	51.4%
4. Percent of patients 10 and older who use tobacco where assistance with developing a behavioral quit plan was provided	70.0%	71.4%	1.4%
5. Percent of patients 18 and older who use tobacco where medication use was recommend to aid their quit plan	35.0%	42.9%	7.9%
6. Percent of patients 10 and older who use tobacco who were provided motivational treatment to quit tobacco use	81.3%	31.8%	(49.5%)
7. Percent of patients 10 and older who use tobacco, and who are ready to quit using tobacco, where a follow up was scheduled	15.0%	28.6%	13.6%
8. Percent of patients 10 and older who were former tobacco users where assistance with relapse prevention was provided	25.0%	33.3%	8.3%

Summary of Key Findings

A general summary of key findings is presented below. The first comparison displayed is the year-over-year compliance percentage comparison summary, followed by the SFY 2009 to SFY 2012 comparison and then the high buy-in practice analysis.

Longitudinal Analysis 2011 – 2012

Approximately 44 percent (19 out of 43) of the CareMeasures™ findings improved from SFY 2011 to SFY 2012. Twenty-one percent (9 out of 43) declined, excluding three measures that each declined by only 0.1 percent. The remaining measures did not change or could not be tracked longitudinally because there were fewer than five patients in the denominator in SFY 2011.

Findings for the diagnosis-specific clinical measures demonstrated considerable increases in compliance rates for chronic obstructive pulmonary disease (COPD) and several of the coronary artery disease measures. There were mixed results for asthma and diabetes, with some improving and some declining. Hypertension results remained relatively unchanged from SFY 2011 to SFY 2012. PHPG excluded comparisons for congestive heart failure and six of the coronary artery disease measures since there were fewer than five patients in the denominators.

Findings for the prevention measures were mixed, with two improving, three declining and one measure unchanged. Tobacco cessation results likewise were mixed, with six of eight measures demonstrating increases in compliance and two of eight measures showing a decline.

APS also calculated compliance percentages for the entire SoonerCare Medicaid population to serve as a comparison, where applicable, to CareMeasures™ clinical measures for this same period. The SoonerCare HMP population showed higher compliance rates on eight of the nine measures for which data was available to make a comparison.

Longitudinal Analysis 2009 – 2012

Fifty-one percent (22 out of 43) of the CareMeasures™ findings improved from SFY 2009 to SFY 2012. Thirty-three percent (14 out of 43) declined, although tobacco cessation measures accounted for six of the 14 falling measures. The remaining measures did not change or could not be tracked longitudinally because there were fewer than five patients in the denominator in SFY 2009 or the measure was not yet being tracked.

Findings for the diagnosis-specific clinical measures demonstrated considerable increases in compliance rates for asthma and the majority of the diabetes measures. There were mixed results for coronary artery disease, congestive heart failure and hypertension, with some improving and some declining. PHPG excluded comparisons for chronic obstructive pulmonary

disease, one coronary artery disease measure and three congestive heart failure measures since there were fewer than five patients in the denominators.

Findings for the prevention measures were mixed, with four improving, one declining and one excluded due to sample size. As noted, tobacco cessation results were not favorable, with six of eight measures demonstrating modest declines in compliance and two of eight measures showing an increase. As also previously noted, this decline may be attributable at least in part to more conservative reporting and billing activities by providers as the result of practice facilitation.

High Buy-in Practices

PHPG also performed a separate analysis of 18 practices identified by the OHCA as “high buy-in” participants, meaning they had demonstrated a higher than average level of interest and commitment to the program. PHPG compared compliance percentages for these practices to other sites to document any differences in performance during SFY 2012.

The high buy-in practices demonstrated better performance on 78 percent (18 of 23) of measures for which a comparison could be made. The high buy-in practices demonstrated poorer or equal performance on the other five measures.

Expenditure Trend Analysis

Overview

Practice facilitation, if effective, should have an observable impact on PMPM expenditures for patients with chronic conditions. Improvement in the quality of care should yield better outcomes in the form of lower acute care costs.

This section includes information for patients with chronic conditions treated at practice facilitation sites. The analysis includes the six conditions targeted for improvement and tracked through CareMeasures™: asthma, COPD, coronary artery disease, diabetes, congestive heart failure and hypertension.

It also includes ten other chronic conditions used by MEDai in calculation of the chronic impact score for potential nurse care managed participants: cerebrovascular accident (stroke), depression, HIV, hyperlipidemia (high cholesterol), lower back pain, migraine headache, multiple sclerosis, renal failure, rheumatoid arthritis and schizophrenia. PHPG considered it reasonable to include these additional conditions in the expenditure analysis since improvements in care management should transcend any particular disease.

Similar to the method used for the nurse care management evaluation, PHPG analyzed per member per month (PMPM) medical expenditures for patients treated during the evaluation period compared to MEDai forecasts. Due to a small number of providers entering the program in SFY 2012, PHPG expanded the analysis in the previous report to include an additional evaluation period. The SFY 2011 report presented results for the first 12 months and months 13 to 24 following provider initiation into practice facilitation; this report extends the analysis to include months 25 and beyond.

Exhibits summarizing the results for the sixteen conditions and practice facilitation overall during the three evaluation periods are included in Appendix G of the report. Key findings are presented starting on the following page. The six targeted conditions are presented first, followed by the other ten conditions and results for the sixteen conditions in aggregate.

Methodology for Creation of Expenditure Dataset

The practice facilitation dataset was developed from the complete Medicaid claims and eligibility extract provided by the state.

To be included in the analysis, patients must have received at least one service from a practice facilitation provider during the 24 months following the provider's initiation into practice facilitation.^{42,43} Each evaluation period includes experience only for patients who received a service from a practice facilitation provider in the same or prior evaluation period. Patients only were included in their diagnostic category with the greatest expenditures during the 24 months prior and 24 months following provider initiation.

For the first evaluation period, MEDai forecast data for patients was extracted from the member forecast file corresponding to the month in which the provider was initiated. Forecast data for the second evaluation period was extracted from the file representing the provider's thirteenth month after initiation. For the third evaluation period, PHPG calculated the trend in actual expenditures relative to provider initiation dates for a comparison group and applied the trend factor to the forecast values for the second period.⁴⁴

Some conditions have relatively small numbers of patients for which the condition is the most expensive diagnosis. This can result in significant variation in PMPM expenditures from year to year. Expenditure findings for these diagnoses should be interpreted with caution.

⁴² Approximately 26,000 members as of June 30, 2012.

⁴³ Previous reports included all patients who received a service from a Practice Facilitation provider during the 24 months prior to provider initiation into the program, even if no services were received after initiation of practice facilitation. Due to a greater volume of patients, PHPG was able to perform a more targeted analysis limited only to patients who saw a Practice Facilitation provider both before and after initiation.

⁴⁴ The comparison group consisted of members (approximately 15,000) who received a service from a provider participating in Practice Facilitation during the 24 months prior to the provider's initiation into the program. The member also must not have received a service from one of these providers during the 24 months following the provider's initiation. Trend factors were calculated separately for each chronic condition.

Target Condition: Asthma

PMPM medical expenditures for patients with asthma were approximately eight percent below forecast during the first 12 months following initiation of practice facilitation, reversing to six percent above forecasts for months 13 to 24. Expenditures during months 25 and beyond were 11 percent below forecast. PMPM savings averaged \$14 (three percent) through SFY 2012 (see exhibit 3-29).

Exhibit 3-29 – Forecast versus Actual PMPM Medical Expenditures: Asthma



Target Condition: COPD

PMPM medical expenditures for patients with COPD were 11.5 percent below forecast during the first 12 months following initiation of practice facilitation and nearly 25 percent below forecast during months 13 to 24. Expenditures during months 25 and beyond were 12 percent above forecast (see exhibit 3-30). PMPM savings averaged \$163 (15 percent) through SFY 2012.

Exhibit 3-30 – Forecast versus Actual PMPM Medical Expenditures: COPD



Target Condition: Congestive Heart Failure

PMPM medical expenditures for patients with congestive heart failure were nearly equal to forecast for the first 24 months following initiation of practice facilitation. Expenditures during months 25 and beyond were 6.5 percent below forecast (see exhibit 3-31). PMPM savings averaged \$21 (one percent) through SFY 2012.

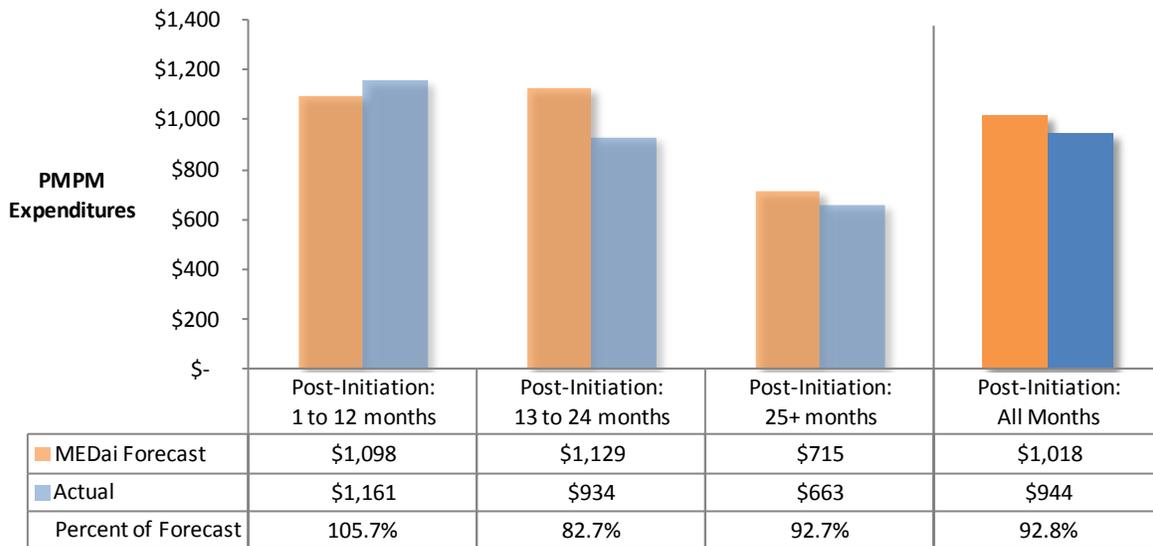
Exhibit 3-31 – Forecast versus Actual PMPM Medical Expenditures: Congestive Heart Failure



Target Condition: Coronary Artery Disease

PMPM medical expenditures for patients with coronary artery disease approximately six percent above forecast during the first 12 months following initiation of practice facilitation before declining to 17 percent below forecast during months 13 to 24. Expenditures during months 25 and beyond were seven percent below forecast (see exhibit 3-32). PMPM savings averaged \$74 (seven percent) through SFY 2012.

Exhibit 3-32 – Forecast versus Actual PMPM Medical Expenditures: Coronary Artery Disease



Target Condition: Diabetes Mellitus

PMPM medical expenditures for patients with diabetes were nearly nine percent below forecast during the first 12 months following initiation of practice facilitation and more than 22 percent below forecast during months 13 to 24. Expenditures during months 25 and beyond were approximately five percent below forecast (see exhibit 3-33). PMPM savings averaged \$145 (14 percent) through SFY 2012.

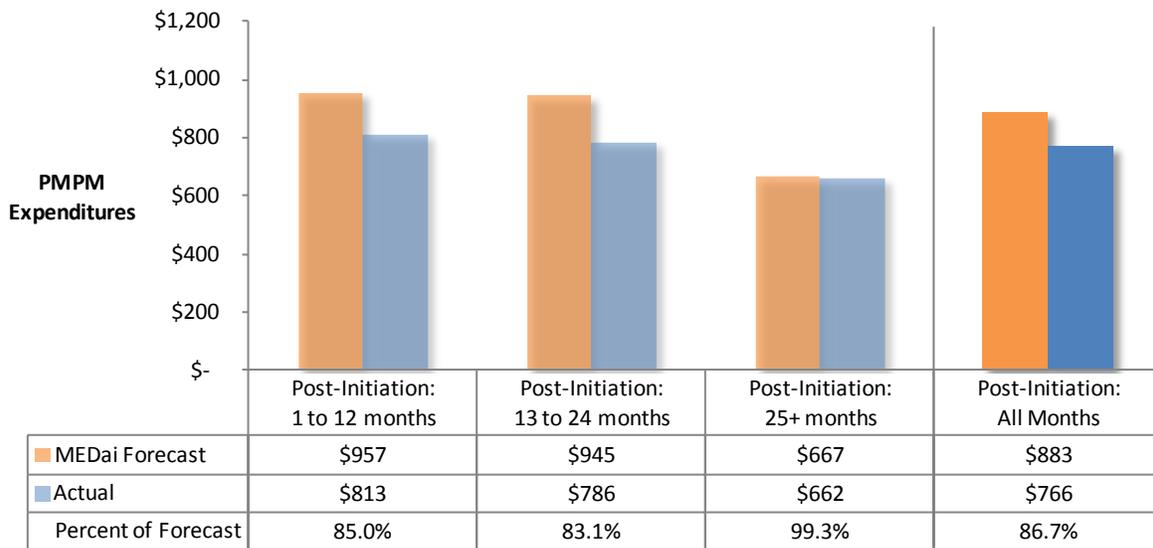
Exhibit 3-33 – Forecast versus Actual PMPM Medical Expenditures: Diabetes



Target Condition: Hypertension

PMPM medical expenditures for patients with hypertension were 15 percent below forecast during the first 12 months following initiation of practice facilitation and 17 percent below forecast during months 13 to 24. Expenditures during months 25 and beyond were slightly less than one percent below forecast (see exhibit 3-34). PMPM savings averaged \$177 (13 percent) through SFY 2012.

Exhibit 3-34 – Forecast versus Actual PMPM Medical Expenditures: Hypertension



Chronic Impact Score Condition: Cerebrovascular Accident (Stroke)

PMPM medical expenditures for patients with cerebrovascular accident were 33 percent above forecast during the first 12 months following initiation of practice facilitation before subsiding to approximately one percent above forecast during months 13 to 24. Expenditures during months 25 and beyond were 44 below forecast (see exhibit 3-35). The year-over-year volatility likely was due at least in part to the relatively small number of patients with this condition (see Appendix G for a count of patients by diagnosis). Average PMPM expenditures were within one percent of forecast through SFY 2012.

Exhibit 3-35 – Forecast versus Actual PMPM Medical Expenditures: Cerebrovascular Accident



Chronic Impact Score Condition: Depression

PMPM medical expenditures for patients with hypertension were approximately five percent below forecast during the first 12 months following initiation of practice facilitation and 13 percent below forecast during months 13 to 24. Expenditures during months 25 and beyond were 5.4 percent below forecast (see exhibit 3-36). PMPM savings averaged \$51 (eight percent) through SFY 2012.

Exhibit 3-36 – Forecast versus Actual PMPM Medical Expenditures: Depression



Chronic Impact Score Condition: HIV

PMPM medical expenditures for patients with HIV were 18 percent above forecast during the first 12 months following initiation of practice facilitation and approximately five percent above forecast during months 13 to 24. Expenditures during months 25 and beyond were 13 below forecast (see exhibit 3-37). As with cerebrovascular accident, the year-over-year volatility likely was due at least in part to the relatively small number of patients with this condition. Average PMPM expenditures were \$141 (six percent) above forecast through SFY 2012.

Exhibit 3-37 – Forecast versus Actual PMPM Medical Expenditures: HIV



Chronic Impact Score Condition: Hyperlipidemia (High Cholesterol)

PMPM medical expenditures for patients with hyperlipidemia were approximately 22 percent below forecast during the first 24 months following initiation of practice facilitation and even with forecast during months 25 and beyond (see exhibit 3-38). PMPM savings averaged \$99 (18 percent) through SFY 2012.

Exhibit 3-38 – Forecast versus Actual PMPM Medical Expenditures: Hyperlipidemia



Chronic Impact Score Condition: Lower Back Pain

PMPM medical expenditures for patients with hypertension were approximately 28 percent below forecast during the first 12 months following initiation of practice facilitation and 31 percent below forecast during months 13 to 24. Expenditures during months 25 and beyond were 14 percent above forecast (see exhibit 3-39). PMPM savings averaged \$133 (23 percent) through SFY 2012.

Exhibit 3-39 – Forecast versus Actual PMPM Medical Expenditures: Lower Back Pain



Chronic Impact Score Condition: Migraine Headaches

PMPM medical expenditures for patients with migraine headaches were 20 percent below forecast during the first 24 months following initiation of practice facilitation and nearly even with forecast during months 25 and beyond (see exhibit 3-40). PMPM savings averaged \$94 (16 percent) through SFY 2012.

The PMPM medical expenditures for patients with migraine headaches were approximately 20 percent below forecast during both years one and two following provider initiation, before becoming even with forecast during months 25 and beyond (see exhibit 3-40). Average savings across the three evaluation periods equaled \$94 PMPM, or 16 percent.

Exhibit 3-40 – Forecast versus Actual PMPM Medical Expenditures: Migraine Headaches



Chronic Impact Score Condition: Multiple Sclerosis

PMPM medical expenditures for patients with multiple sclerosis were 15 percent above forecast during the first 12 months following initiation of practice facilitation and four percent below forecast during months 13 to 24. Expenditures during months 25 and beyond were 51 percent above forecast (see exhibit 3-41). The PMPM deficit averaged \$198 (16 percent) through SFY 2012. Findings should be interpreted with caution as there were a relatively small number of patients with this diagnosis.

Exhibit 3-41 – Forecast versus Actual PMPM Medical Expenditures: Multiple Sclerosis



Chronic Impact Score Condition: Renal Failure

PMPM medical expenditures for patients with renal failure were approximately over 41 percent above forecast during the first 12 months following initiation of practice facilitation before declining to 31 percent below forecast during months 13 to 24. Expenditures during months 25 and beyond were 14 percent below forecast (see exhibit 3-42). PMPM savings averaged \$61 (three percent) through SFY 2012. The year-over-year volatility likely was due at least in part to the relatively small number of patients with this condition.

Exhibit 3-42 – Forecast versus Actual PMPM Medical Expenditures: Renal Failure



Chronic Impact Score Condition: Rheumatoid Arthritis

PMPM medical expenditures for patients with rheumatoid arthritis were three percent below forecast during the first 12 months following initiation of practice facilitation and nearly 30 percent below forecast during months 13 to 24. Expenditures during months 25 and beyond were 15 percent above forecast (see exhibit 3-43). PMPM savings averaged \$120 (13 percent) through SFY 2012. The year-over-year volatility likely was due at least in part to the relatively small number of patients with this condition.

Exhibit 3-43 – Forecast versus Actual PMPM Medical Expenditures: Rheumatoid Arthritis



Chronic Impact Score Condition: Schizophrenia

PMPM medical expenditures for patients with schizophrenia were approximately five percent above forecast during the first 12 months following initiation of practice facilitation and nearly even with forecast during months 13 to 24. Expenditures during months 25 and beyond were almost 11 percent below forecast (see exhibit 3-44). PMPM savings averaged \$3 (less than one percent) through SFY 2012.

Exhibit 3-44 – Forecast versus Actual PMPM Medical Expenditures: Schizophrenia



Patients with No Chronic Impact Score Conditions

PMPM medical expenditures for patients with no diagnosis corresponding to a Chronic Impact condition were approximately 19 percent below forecast during the first 12 months following initiation of practice facilitation and 10 percent below forecast during months 13 to 24. Expenditures during months 25 and beyond were 4.4 percent below forecast (see exhibit 3-45). PMPM savings averaged \$37 (10 percent) through SFY 2012.

**Exhibit 3-45 – Forecast versus Actual PMPM Medical Expenditures:
No Chronic Impact Score Conditions**



PMPM Expenditure Trend Summary

PMPM medical expenditures for all patients, regardless of condition, were below forecast in all three evaluation periods, with the greatest savings achieved during months 13 to 24 following initiation of practice facilitation (see exhibit 3-46). PMPM savings averaged \$91 (14 percent) through SFY 2012.

Exhibit 3-46 – Forecast versus Actual PMPM Medical Expenditures: All Patients



Practice Facilitation Cost Effectiveness Analysis

PHPG conducted a formal cost effectiveness analysis of practice facilitation by adding SoonerCare HMP administrative expenses to the medical expenditure data presented in the summary portion of the previous section. The combined medical and administrative expenses represent the appropriate values for measuring the overall cost effectiveness of the practice facilitation initiative.

Appendix H contains detailed cost effectiveness tables. The methodology and key findings are presented below.

Administrative Expenses

SoonerCare HMP administrative expenses were calculated using the same methodology as described in chapter two for nurse care management. SoonerCare HMP unit expenses were allocated between nurse care management and practice facilitation using factors provided by the OHCA, with only practice facilitation expenses included in the analysis.

Telligen vendor payments for start-up activities were similarly divided into nurse care management and practice facilitation categories, with only the latter retained. Operational expenses were segmented by state fiscal year.

OHCA and Telligen administrative payments were combined and divided by total member months for patients of practice facilitation sites to derive an administrative PMPM cost. Averaged over fiscal years 2008 through 2012, total PMPM administrative costs were a modest \$15.84.

Cost-Effectiveness Test

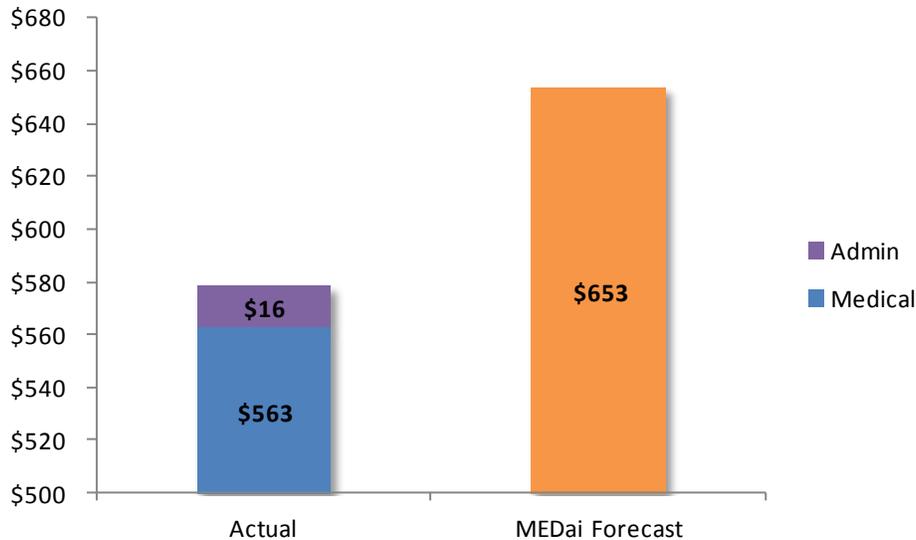
PHPG performed a cost-effectiveness test utilizing MEDai forecast data available for patients receiving care at active practice facilitation sites. Patients were identified for the MEDai analysis if they received at least one service from a provider currently participating in practice facilitation at any time during the 24 months following the provider's initiation date.⁴⁵

Similar to the method used for the nurse care management evaluation, PHPG analyzed PMPM medical expenditures for patients treated during the evaluation period compared to MEDai forecasts. As only a few new providers entered the program in SFY 2012, PHPG elected to build on the SFY 2011 analysis by separately evaluating expenditures during months 25 and beyond following provider initiation. Expenditures as percent of forecasts by evaluation period and MEDai Chronic Impact condition are presented in Appendix G.

⁴⁵ Criteria revised from previous reports. See Methodology section of Expenditure Analysis.

The PMPM values presented below combine patient experience across all three post-provider initiation evaluation periods (1 to 12 months, 13 to 24 months, 25 months and beyond). PMPM expenditures for practice facilitation patients (post-provider initiation) averaged \$579 through SFY 2012, after factoring-in program administrative expenses. This compared favorably to a \$653 PMPM expenditure forecast for the same patients absent practice facilitation (see exhibit 3-47).

Exhibit 3-47 – Practice Facilitation PMPM Cost Effectiveness Test



The net difference in PMPM expenditures (forecast minus actual) through SFY 2012 was \$74.91. This figure, when multiplied by practice facilitation site member months (615,600) yields **aggregate savings of \$46.1 million (state and federal dollars), or 11.5 percent as measured against \$402 million in total medical claims costs⁴⁶.**

Conclusion

Practice facilitation appears to be producing measurable savings as the program enters its fifth full year of operations. However, it is likely that practice facilitation is yielding financial benefits beyond what is captured in the cost effectiveness analysis. The improved care management processes, although targeted at patients with chronic conditions, can be expected to improve efficiency and quality of care for all patients, leading in some cases to earlier identification and treatment of acute or chronic illnesses.

⁴⁶ As previously noted, the methodology for calculation of aggregate savings was refined in SFY 2012. If the refined methodology had been applied last year, the aggregate savings through SFY 2011 would have been documented as \$33.5 million. The increase in savings in SFY 2012 therefore was approximately \$12.6 million.

Practice Facilitation Evaluation - Summary of Key Findings

PHPG's audit of the practice facilitation process found that Telligen was performing activities in accordance with contract standards. Participating practices remain satisfied with the program and nearly 90 percent credited practice facilitation with improving their management of patients with chronic conditions. Most reported making changes in chronic patient care management as the result of onsite activities and most are committed to remaining in the program over the long term.

Quality of care trends appear generally positive, based on CareMeasures™ data, with improvement observed in 44 percent of the measures as compared to SFY 2011. Findings for the diagnosis-specific clinical measures demonstrated considerable increases in compliance rates for chronic obstructive pulmonary disease (COPD) and several of the coronary artery disease measures. In addition, patients of practice facilitation providers showed higher compliance rates than the general Medicaid population on eight of nine measures for which data was available to make a comparison.

Practice facilitation also continues to have an impact on expenditures. Estimated savings through SFY 2012 stand at slightly over \$46 million.

CHAPTER 4 – SOONERCARE HMP RETURN ON INVESTMENT

Introduction

The SoonerCare HMP required an upfront investment of administrative dollars for Telligen staffing and implementation activities and for staffing of a dedicated program unit within the OHCA. The program incurs ongoing administrative expenditures associated with Telligen’s provision of nurse care management and practice facilitation and the OHCA’s program management and quality oversight activities.

The value of the program is measurable on multiple axes, including quality of care, member and provider satisfaction, improvement in service utilization and overall impact on medical expenditures. The last criterion is arguably the most important, as progress in other areas should ultimately result in medical expenditures remaining below the level that would have occurred absent the program.

PHPG examined the program’s return on investment (ROI) through SFY 2012, by comparing administrative expenditures to medical savings. The figures used for the ROI calculation were taken from Appendices D and H, which contain detailed cost effectiveness data for nurse care management and practice facilitation, respectively.

ROI Results

Exhibit 4-1 below presents ROI results by SoonerCare HMP program component and for the program overall. As it illustrates, all program components have achieved a significant positive ROI. The ROI for the program in total is 524 percent (the corresponding figure through SFY 2011 was 416 percent). Put another way, ***the SoonerCare HMP has generated over six dollars in medical savings for every dollar in administrative expenditures.***

Exhibit 4-1 – SoonerCare HMP ROI (State and Federal Dollars)

Component	Administrative Costs	Medical Savings	Net Savings	Return on Investment
NCM (All)	(\$16,811,912)	\$109,924,559	\$93,112,647	554%
NCM Tier 1	(\$8,190,023)	\$34,541,997	\$26,351,974	322%
NCM Tier 2	(\$8,621,890)	\$75,382,563	\$66,760,673	774%
Practice Facilitation	(\$9,751,949)	\$55,863,530	\$46,111,582	473%
TOTAL Program	(\$26,563,861)	\$165,788,090	\$139,224,229	524%

APPENDIX A – PARTICIPANT SURVEY & FOCUS GROUP MATERIALS

Appendix A includes the advance letter sent to SoonerCare HMP participants and survey instrument. The instrument also includes questions specific to persons who indicate they either have dropped out or opted out of nurse care management. Finally, this appendix also includes the guide utilized by the moderator for focus group interviews.



The SoonerCare Program needs your help! The SoonerCare Health Management Program has asked the Pacific Health Policy Group (PHPG) to conduct a survey to find out how your experiences have been in the program and if you are happy with your health care. You were chosen because you or a child living with you was offered a chance to enroll in our SoonerCare Health Management Program.

The survey will be over the phone and will only take about 10 minutes of your time. In the next few days, someone working on behalf of SoonerCare will be calling you.

THE SURVEY IS VOLUNTARY! If you decide not to complete the survey, it will NOT affect your benefits.

However, we want to hear from you hope you will agree to help. Anything you tell us in the survey will be kept confidential.

If you have any questions, you can reach us toll-free at 1-888-941-9358. If you would like to take the survey right away, you may call the same number any time during the hours of 9 a.m. and 5 p.m.

We look forward to speaking with you soon.

HMP ELIGIBLE SURVEY

INTRODUCTION & CONSENT

Hello, my name is _____ and I am calling on behalf of the Oklahoma SoonerCare program. May I please speak to {RESPONDENT NAME}?

[IF SPEAKING WITH RESPONDENT, GO TO INTRO1.]

[IF RESPONDENT IS NOT AVAILABLE, GO TO INTRO2.]

INTRO1. We are conducting a study to find out about the kind of help SoonerCare members need managing their health care and what they think about the quality of the health care they receive. Your household was chosen because someone in it was offered a chance to enroll in the SoonerCare Health Management Program.

You may choose to do this interview or not. If you do participate, your responses will be kept private. Your decision to do the interview will not affect any SoonerCare benefits you get. The questions should take about ten minutes to answer.

You can ask me any questions during this survey, and you may stop at any time. If you are unsure of an answer, just do your best to choose a response -- there are no right or wrong answers.

I'd like to begin the interview now, but before we begin, do you have any questions about the survey?

[ANSWER ANY QUESTIONS AND PROCEED TO QUESTION 1]

INTRO2. [SCHEDULE TIME TO CALL BACK]

Can you tell me a convenient time to call back to speak with (him/her)?

[RECORD CALL BACK TIME]

PROGRAM AWARENESS & ENROLLMENT STATUS

1. The SoonerCare program is a health insurance program offered by the state. Are you currently enrolled in SoonerCare?⁴⁷
 - a. Yes
 - b. No → [ASK IF ENROLLED IN MEDICAID. IF NO, TERMINATE]
2. Some SoonerCare members with health care needs receive help through a special program known as the SoonerCare Health Management Program. Have you heard of it?
 - a. Yes
 - b. No → [TERMINATE]

⁴⁷ All questions include a "Don't Know/Refuse" option (unprompted). Questions are reworded for parents/guardians answering for children.

3. Were you contacted and offered a chance to enroll in the SoonerCare Health Management Program?
 - a. Yes
 - b. No → [TERMINATE]
4. Did you decide to enroll?
 - a. Yes
 - b. No → [GO TO QUESTION 7]
 - c. Not yet, but still considering → [GO TO QUESTION 9]
5. Are you still enrolled today in the SoonerCare Health Management Program?
 - a. Yes
 - b. No → [GO TO QUESTION 8]
6. How long have you been enrolled in the SoonerCare Health Management Program?
 - a. Less than one month
 - b. One to two months
 - c. Three to four months
 - d. Four to six months
 - e. More than six months
7. Why did you decide not to enroll in the SoonerCare Health Management Program? [DO NOT PROMPT. RECORD ALL REASONS – READ BACK ANSWERS AND ASK TO CHOOSE MOST IMPORTANT REASON] → [GO TO QUESTION 9]
 - a. Not aware of program/was not asked to enroll
 - b. Did not understand purpose of the program
 - c. Satisfied with doctor/current health care access
 - d. Do not wish to self-manage care/receive health education
 - e. Do not want to be evaluated by Nurse Care Manager
 - f. Tried to enroll but was unsuccessful [SPECIFY REASON IN COMMENTS]
 - g. Have no health needs at this time
 - h. Other [SPECIFY IN COMMENTS]

8. Why did you decide to disenroll from the SoonerCare Health Management Program? [DO NOT PROMPT. RECORD ALL REASONS – READ BACK ANSWERS AND ASK TO CHOOSE MOST IMPORTANT REASON] → [GO TO QUESTION 9]
- a. Not aware of program/did not know was enrolled
 - b. Did not understand purpose of the program
 - c. Satisfied with doctor/current health care access without program
 - d. Doctor recommended I disenroll
 - e. Do not wish to self-manage care/receive health education
 - f. Do not want to be evaluated by Nurse Care Manager
 - g. Dislike Nurse Care Manager
 - h. Have no health needs at this time
 - i. Other [SPECIFY IN COMMENTS]
9. Would you like to have someone contact you about enrolling [re-enrolling] in the SoonerCare Health Management Program? [RECORD ANSWER AND TERMINATE]
- a. Yes
 - b. No

USUAL SOURCE OF CARE

Next I am going to ask a few questions about where you get your health care.

10. Do you have a regular doctor or nurse practitioner you usually see if you need a check-up, want advice about a health problem or get sick or hurt?
- a. Yes
 - b. No → [GO TO QUESTION 13]
11. What is your regular doctor or nurse practitioner's name? [RECORD NAME]
12. How long have you been going to this doctor or nurse practitioner? [RECORD ANSWER AND GO TO QUESTION 13]
- a. Less than six months
 - b. At least six months but less than one year
 - c. At least one year but less than three years
 - d. At least three years but less than five years
 - e. Five years or more
13. In the last twelve months, where did you usually get health care?
- a. A Clinic?
 - b. An urgent care center?
 - c. An Emergency Room?
 - d. Other [SPECIFY IN COMMENTS]
 - e. No usual place

14. A health care provider is a doctor, nurse or anyone else you would see for health care. In the past twelve months, have you seen a doctor or other health care provider three or more times for the same condition or problem?
- a. Yes
 - b. No
15. What was the problem or condition? [RECORD ALL CONDITIONS]
16. Not including trips to the emergency room, in the past twelve months, how many times have you seen a doctor or other health care provider for any reason? [RECORD NUMBER]
17. In the past twelve months, how many times have you been seen in an emergency room for any reason? [RECORD NUMBER]

DECISION TO ENROLL IN HEALTH MANAGEMENT PROGRAM

Next I want to ask about your decision to enroll in the SoonerCare Health Management Program.

18. How did you learn about the SoonerCare Health Management Program? [DO NOT PROMPT]
- a. Received information in the mail
 - b. Received a call
 - c. Doctor referred me
 - d. Other [SPECIFY IN COMMENTS]
19. What were your reasons for deciding to enroll in the SoonerCare Health Management Program? [DO NOT PROMPT - RECORD ALL ANSWERS]
- a. Learn how to better manage health problems
 - b. Learn how to identify changes in health
 - c. Have someone to call with questions about health
 - d. Get help making health care appointments
 - e. Personal doctor recommended I enroll
 - f. Improve my health
 - g. Was invited to enroll/No specific reason
 - h. Other [SPECIFY IN COMMENTS]
20. Among the reasons you just gave, what was your most important reason for deciding to enroll?

HMP EXPERIENCE – NURSE CARE MANAGER

Now I'm going to ask you a few questions about your experience in the SoonerCare Health Management Program, starting with your Nurse Care Manager.

21. How soon after you enrolled in the SoonerCare Health Management Program were you contacted by your Nurse Care Manager?
 - a. Contacted at time of enrollment
 - b. Less than one week
 - c. One to two weeks
 - d. More than two weeks
 - e. Have not been contacted – enrolled two weeks ago or less
 - f. Have not been contacted – enrolled two to four weeks ago
 - g. Have not been contacted – enrolled more than four weeks ago

22. Can you tell me the name of your Nurse Care Manager?
 - a. Yes [RECORD NAME]
 - b. No

23. About when was the last time you spoke to your Nurse Care Manager?
 - a. Within the last week
 - b. One to two weeks ago
 - c. Two to four weeks ago
 - d. More than four weeks ago
 - e. Have not spoken to Nurse Care Manager since being evaluated
 - f. Have never spoken to Nurse Care Manager

24. How many times have you spoken to your Nurse Care Manager since enrolling in the SoonerCare Health Management Program, either in person or over the phone? This includes your evaluation. [RECORD NUMBER]

25. [TIER 1 ENROLLEES ONLY (IF KNOWN)] How many times have you met your Nurse Care Manager in person? [RECORD NUMBER]

26. Did your Nurse Care Manager give you a telephone number to call if you needed help with your care?
 - a. Yes
 - b. No → [GO TO QUESTION 30]

27. Have you tried to call your Nurse Care Manager at the number you were given?
 - a. Yes
 - b. No → [GO TO QUESTION 30]

28. Thinking about the last time you called your Nurse Care Manager, what was the reason for your call? [DO NOT PROMPT]
- a. Routine health question
 - b. Urgent health problem
 - c. Seeking assistance in scheduling appointment
 - d. Returning call from Nurse Care Manager
 - e. Other [SPECIFY IN COMMENTS]
29. Did you reach your Nurse Care Manager immediately? [IF NO] How quickly did you get a call back?
- a. Reached immediately (at time of call)
 - b. Called back within one hour
 - c. Called back in more than one hour but same day
 - d. Called back the next day
 - e. Called back two or more days later
 - f. Never called back
 - g. Other [SPECIFY IN COMMENTS]

30. Which of the following things has your Nurse Care Manager done for you? Has your Nurse Care Manager:

	Yes	No
a. Asked questions about your health problems or concerns		
b. Provided instructions about taking care of your health problems or concerns		
c. Helped you to identify changes in your health that might be an early sign of a problem		
d. Answered questions about your health		
e. Helped you to make and keep health care appointments for medical problems		
f. Helped you to make and keep health care appointments for mental health or substance abuse problems		

31. [ASK FOR EACH "YES" ACTIVITY IN Q30] Thinking about what your Nurse Care Manager has done for you, please tell me how satisfied you are with the help you received. Tell me if you are Very Satisfied, Somewhat Satisfied, Somewhat Dissatisfied or Very Dissatisfied. [REPEAT CHOICES FOR EACH ITEM]

	Very Satisfied	Somewhat Satisfied	Somewhat Dissatisfied	Very Dissatisfied
a. Learning about you and your health care needs				
b. Getting easy to understand instructions about taking care of health problems or concerns				
c. Getting help identifying changes in your health that might be an early sign of a problem				
d. Answering questions about your health				
e. Helping you make and keep health care appointments for medical problems				
f. Helping you make and keep health care appointments for mental health or substance abuse problems				

32. Overall, how satisfied are you with the help you have received from your Nurse Care Manager? Would you say you are Very Satisfied, Somewhat Satisfied, Somewhat Dissatisfied or Very Dissatisfied?

- a. Very Satisfied
- b. Somewhat Satisfied
- c. Somewhat Dissatisfied
- d. Very Dissatisfied

HMP EXPERIENCE – WEBSITE

33. Did you know that the SoonerCare Health Management Program has a website?
- Yes
 - No → [GO TO QUESTION 37]
34. Have you ever visited the website?
- Yes
 - No → [GO TO QUESTION 37]
35. Thinking about the last time you visited the website, what was your reason for visiting it? [DO NOT PROMPT]
- Seeking general information about the program
 - Routine health question/seeking general health information
 - Urgent health problem
 - Seeking assistance in scheduling appointment
 - No specific reason
 - Other [SPECIFY IN COMMENTS]
36. Was the website helpful to you?
- Yes
 - No

HMP – OVERALL SATISFACTION

37. Overall, how satisfied are you with your experience in the SoonerCare Health Management Program? Would you say are Very Satisfied, Somewhat Satisfied, Somewhat Dissatisfied or Very Dissatisfied?
- Very satisfied
 - Somewhat satisfied
 - Somewhat dissatisfied
 - Very dissatisfied
38. Would you recommend the SoonerCare Health Management Program to a friend who has health care needs like yours?
- Yes
 - No
39. Do you have any suggestions for improving the SoonerCare Health Management Program? [RECORD ALL RECOMMENDATIONS]

HEALTH STATUS & DEMOGRAPHICS

We're almost done. I just have a few more questions.

40. Overall, how would you rate your health today? Would you say it is excellent, good, fair or poor?
- Excellent
 - Good
 - Fair
 - Poor
41. Compared to before you enrolled in the SoonerCare Health Management Program, how has your health changed? Would you say your health is better, worse or about the same?
- Better
 - Worse → [GO TO QUESTION 43]
 - About the same → [GO TO QUESTION 43]
42. Do you think the SoonerCare Health Management Program has contributed to your improvement in health?
- Yes
 - No
43. What is your age? [RECORD AGE]
44. Are you of Hispanic or Latino origin or descent?
- Yes
 - No
45. I am now going to ask about your race. I will read you a list of choices. You may choose one or more.
- White
 - Black or African American
 - Asian
 - Native Hawaiian or other Pacific Islander
 - American Indian or Alaska Native
 - Another race

Those are all the questions I have today. We may contact you again in about six months to follow-up and learn if anything about your health care has changed. **Thank you for your help!**

HMP FOCUS GROUP INTERVIEW GUIDE

I. Introduction

- Purpose
 - We've been asked by SoonerCare to conduct this focus group to find out what your experiences have been like with the Health Management Program. The information we learn today will be used by us to evaluate the program and how the program can be improved.

- Ground Rules
 - You can choose whether or not to participate in the focus group and can stop at any time.
 - There are no right or wrong answers to the focus group questions. Every person's experience and opinions are important so we would like to hear from everyone.
 - We also want you to feel comfortable sharing when sensitive issues may come up so what is said in this room stays here. We also ask that only one individual speak at a time in the group in the group.
 - Although the focus group will be tape recorded, your responses will remain anonymous and no names will be mentioned.
 - What you say here today will not affect your SoonerCare benefits in anyway.

- Participant Introductions
 - Name
 - Age
 - City
 - Whether you are in the program or another family member is
 - How long you have been in the Health Management Program
 - What were your reasons or expectations for participating in this program

II. Nurse Care Management Services

- What has your nurse done for you and what is the typical monthly interaction you have with your nurse

- Have you found these things to be helpful

- How often does your nurse call/visit you? Do you think it should be more or less

- Do you like working with your nurse

- How many nurse care managers have you had since enrolling in the program
 - Explore further if more than 1

- Have you made any changes to your health since participating in this program? If so, what kinds of changes
 - Making and keeping appointments with providers
 - Taking medications
 - Diet and exercise/lifestyle changes
- What kinds of challenges are you experiencing that may be hindering you from making these changes
- Have you noticed an improvement in your health since participating in this program
 - Explore further
- Do you think you need a nurse to help you manage your care
 - Explore further
- Why are you no longer in the program
 - How has your health changed
 - Would you like to re-enroll in the program

III. Current Health Care Utilization

- Where do you usually get your healthcare
 - Do you have a regular doctor, physicians assistant or nurse that you see
 - If no, why not
 - How long have you been going to this provider
 - How often do you visit your provider
- Since being enrolled in the program have you been seeing your provider more or less frequently
 - Making more or less appointments and keeping the appointments
 - Same for emergency room
- Where do you usually go to get your health care
- Have you told your provider that you are in this program
- How does your provider feel about your decision
- Has your nurse given you the same or different information than your provider

IV. Suggestions and Recommendations

- What do you like most about the program
- What do you like the least about the program
- If you could change this program to make it better, what would you want to see

END INTERVIEW

APPENDIX B – PARTICIPANT SURVEY CROSSTABS

Appendix B includes active participant responses to all survey questions. The data is cross-tabulated by the following characteristics:

- Tier Group
- Respondent Age (under 21, 21 – 44, 45 and over)
- Respondent Gender
- Respondent Place of Residence (Urban/Rural)

Survey Questions	Active Participants									
	All (N=2938)	Tier		Age			Gender		Location	
		Tier 1	Tier 2	Under 21	21 to 44	45 and older	Male	Female	Urban	Rural
1) Are you currently enrolled in SoonerCare?										
A. Yes	2938 100.0%	931 100.0%	2007 100.0%	287 100.0%	652 100.0%	1999 100.0%	928 100.0%	2010 100.0%	1421 100.0%	1517 100.0%
B. No	0 0.0%	0 0.0%								
2) Have you heard of the Health Management Program (HMP)?										
A. Yes	2938 100.0%	931 100.0%	2007 100.0%	287 100.0%	652 100.0%	1999 100.0%	928 100.0%	2010 100.0%	1421 100.0%	1517 100.0%
B. No	0 0.0%	0 0.0%								
3) Were you contacted and offered a chance to enroll in the HMP?										
A. Yes	2937 99.97%	931 100.00%	2006 99.95%	287 100.00%	652 100.00%	1998 99.95%	928 100.00%	2009 99.95%	1421 100.00%	1516 99.93%
B. No	0 0.00%	0 0.00%								
C. Contacted HMP after hearing about it	1 0.03%	0 0.00%	1 0.05%	0 0.00%	0 0.00%	1 0.05%	0 0.00%	1 0.05%	0 0.00%	1 0.07%

Survey Questions	Active Participants									
	All (N=2938)	Tier		Age			Gender		Location	
		Tier 1	Tier 2	Under 21	21 to 44	45 and older	Male	Female	Urban	Rural
4) Did you decide to enroll?										
A. Yes	2937 99.97%	931 100.00%	2006 99.95%	286 99.65%	652 100.00%	1999 100.00%	928 100.00%	2009 99.95%	1420 99.93%	1517 100.00%
B. No	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
C. Yes, but services no longer needed so plan to disenroll	1 0.03%	0 0.00%	1 0.05%	1 0.35%	0 0.00%	0 0.00%	0 0.00%	1 0.05%	1 0.07%	0 0.00%
5) Are you still enrolled today in the HMP?										
A. Yes	2938 100.0%	931 100.0%	2007 100.0%	287 100.0%	652 100.0%	1999 100.0%	928 100.0%	2010 100.0%	1421 100.0%	1517 100.0%
B. No	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%

Survey Questions	Active Participants									
	All (N=2938)	Tier		Age			Gender		Location	
		Tier 1	Tier 2	Under 21	21 to 44	45 and older	Male	Female	Urban	Rural
6) How long have you been enrolled in the HMP?										
A. Less than 1 month	51 1.7%	21 2.3%	30 1.5%	6 2.1%	11 1.7%	34 1.7%	22 2.4%	29 1.4%	22 1.5%	29 1.9%
B. 1 to 2 months	686 23.3%	242 26.0%	444 22.1%	77 26.8%	158 24.2%	451 22.6%	195 21.0%	491 24.4%	360 25.3%	326 21.5%
C. 3 to 4 months	1004 34.2%	226 24.3%	778 38.8%	103 35.9%	211 32.4%	690 34.5%	319 34.4%	685 34.1%	465 32.7%	539 35.5%
D. 5 to 6 months	368 12.5%	86 9.2%	282 14.1%	36 12.5%	87 13.3%	245 12.3%	125 13.5%	243 12.1%	165 11.6%	203 13.4%
E. More than 6 months	530 18.0%	242 26.0%	288 14.3%	39 13.6%	118 18.1%	373 18.7%	174 18.8%	356 17.7%	265 18.6%	265 17.5%
F. Don't remember/N/A	299 10.2%	114 12.2%	185 9.2%	26 9.1%	67 10.3%	206 10.3%	93 10.0%	206 10.2%	144 10.1%	155 10.2%
7) Do you have a regular doctor or nurse practitioner you usually see?										
A. Yes	2738 93.2%	878 94.3%	1860 92.7%	273 95.1%	594 91.1%	1871 93.6%	863 93.0%	1875 93.3%	1304 91.8%	1434 94.5%
B. No	195 6.6%	50 5.4%	145 7.2%	14 4.9%	57 8.7%	124 6.2%	65 7.0%	130 6.5%	112 7.9%	83 5.5%
C. N/A/Refused	5 0.2%	3 0.3%	2 0.1%	0 0.0%	1 0.2%	4 0.2%	0 0.0%	5 0.2%	5 0.4%	0 0.0%

Survey Questions	Active Participants									
	All (N=2938)	Tier		Age			Gender		Location	
		Tier 1	Tier 2	Under 21	21 to 44	45 and older	Male	Female	Urban	Rural
8) How long have you been going to this doctor or nurse practitioner?	(N=2741)									
A. Less than 6 months	479 17.5%	159 18.1%	320 17.2%	21 7.7%	107 18.0%	351 18.7%	134 15.5%	345 18.4%	265 20.3%	214 14.9%
B. At least 6 months but less than 1 year	425 15.5%	139 15.8%	286 15.4%	31 11.4%	102 17.1%	292 15.6%	125 14.5%	300 16.0%	218 16.7%	207 14.4%
C. At least 1 year but less than 3 years	922 33.6%	297 33.8%	625 33.6%	85 31.1%	220 37.0%	617 32.9%	298 34.5%	624 33.2%	434 33.2%	488 34.1%
D. At least 3 years but less than 5 years	323 11.8%	93 10.6%	230 12.4%	44 16.1%	58 9.7%	221 11.8%	113 13.1%	210 11.2%	146 11.2%	177 12.4%
E. More than 5 years	518 18.9%	166 18.9%	352 18.9%	87 31.9%	92 15.5%	339 18.1%	169 19.6%	349 18.6%	205 15.7%	313 21.8%
F. Don't remember/N/A/Refused	74 2.7%	26 3.0%	48 2.6%	5 1.8%	16 2.7%	53 2.8%	24 2.8%	50 2.7%	40 3.1%	34 2.4%
9) In the last 12 months, where did you get health care?	(N=2936)									
A. Clinic	1164 39.6%	332 35.7%	832 41.5%	93 32.4%	259 39.7%	812 40.7%	365 39.3%	799 39.8%	610 43.0%	554 36.5%
B. Urgent Care Center	10 0.3%	3 0.3%	7 0.3%	1 0.3%	4 0.6%	5 0.3%	4 0.4%	6 0.3%	4 0.3%	6 0.4%
C. Emergency Room	53 1.8%	22 2.4%	31 1.5%	1 0.3%	19 2.9%	33 1.7%	17 1.8%	36 1.8%	26 1.8%	27 1.8%
D. Provider's Office	1571 53.5%	511 54.9%	1060 52.8%	185 64.5%	338 51.8%	1048 52.5%	503 54.2%	1068 53.2%	706 49.7%	865 57.1%

Survey Questions	Active Participants									
	All (N=2938)	Tier		Age			Gender		Location	
		Tier 1	Tier 2	Under 21	21 to 44	45 and older	Male	Female	Urban	Rural
E. No Usual Place	13 0.4%	3 0.3%	10 0.5%	1 0.3%	1 0.2%	11 0.6%	4 0.4%	9 0.4%	4 0.3%	9 0.6%
F. Other	26 0.9%	13 1.4%	13 0.6%	0 0.0%	3 0.5%	23 1.2%	12 1.3%	14 0.7%	11 0.8%	15 1.0%
G. More than 1 Place	89 3.0%	40 4.3%	49 2.4%	6 2.1%	24 3.7%	59 3.0%	22 2.4%	67 3.3%	50 3.5%	39 2.6%
H. N/A/refused	10 0.3%	6 0.6%	4 0.2%	0 0.0%	4 0.6%	6 0.3%	1 0.1%	9 0.4%	9 0.6%	1 0.1%
10) In the past 12 months, have you seen a health care provider 3 or more times for the same condition or problem?	(N=2936)									
A. Yes	2521 85.9%	840 90.3%	1681 83.8%	222 77.4%	552 84.7%	1747 87.5%	780 84.1%	1741 86.7%	1233 86.8%	1288 85.0%
B. No	405 13.8%	84 9.0%	321 16.0%	64 22.3%	98 15.0%	243 12.2%	146 15.7%	259 12.9%	180 12.7%	225 14.8%
C. Don't remember/N/A	10 0.3%	6 0.6%	4 0.2%	1 0.3%	2 0.3%	7 0.4%	2 0.2%	8 0.4%	7 0.5%	3 0.2%
11) What was the problem or condition?	<i>(Not presented in cross tabs due to large volume of discrete diagnoses)</i>									

Survey Questions	Active Participants									
	All (N=2938)	Tier		Age			Gender		Location	
		Tier 1	Tier 2	Under 21	21 to 44	45 and older	Male	Female	Urban	Rural
12) Not including trips to the ER, how many times have you seen a health care provider in the past 12 months?	(N=2935)									
A. 0	26 0.9%	12 1.3%	14 0.7%	2 0.7%	8 1.2%	16 0.8%	12 1.3%	14 0.7%	9 0.6%	17 1.1%
B. 1	40 1.4%	5 0.5%	35 1.7%	5 1.7%	10 1.5%	25 1.3%	16 1.7%	24 1.2%	22 1.6%	18 1.2%
C. 2	113 3.9%	27 2.9%	86 4.3%	19 6.6%	29 4.4%	65 3.3%	45 4.8%	68 3.4%	47 3.3%	66 4.4%
D. 3	163 5.6%	39 4.2%	124 6.2%	22 7.7%	35 5.4%	106 5.3%	58 6.3%	105 5.2%	74 5.2%	89 5.9%
E. 4	305 10.4%	66 7.1%	239 11.9%	31 10.8%	59 9.0%	215 10.8%	113 12.2%	192 9.6%	139 9.8%	166 10.9%
F. 5	188 6.4%	48 5.2%	140 7.0%	24 8.4%	38 5.8%	126 6.3%	66 7.1%	122 6.1%	90 6.3%	98 6.5%
G. 6	231 7.9%	62 6.7%	169 8.4%	24 8.4%	42 6.4%	165 8.3%	73 7.9%	158 7.9%	95 6.7%	136 9.0%
H. 7	88 3.0%	20 2.2%	68 3.4%	19 6.6%	12 1.8%	57 2.9%	28 3.0%	60 3.0%	44 3.1%	44 2.9%
I. 8	117 4.0%	36 3.9%	81 4.0%	11 3.8%	14 2.1%	92 4.6%	37 4.0%	80 4.0%	58 4.1%	59 3.9%
J. 9	42 1.4%	13 1.4%	29 1.4%	3 1.0%	9 1.4%	30 1.5%	15 1.6%	27 1.3%	16 1.1%	26 1.7%

Survey Questions	Active Participants									
	All (N=2938)	Tier		Age			Gender		Location	
		Tier 1	Tier 2	Under 21	21 to 44	45 and older	Male	Female	Urban	Rural
K. 10 or more	1366 46.5%	489 52.6%	877 43.7%	104 36.4%	336 51.5%	926 46.4%	395 42.6%	971 48.4%	693 48.8%	673 44.4%
L. Unsure/refused/N/A	256 8.7%	113 12.2%	143 7.1%	22 7.7%	60 9.2%	174 8.7%	70 7.5%	186 9.3%	132 9.3%	124 8.2%
13) In the past 12 months, how many times have you been seen in the ER?	(N=2935)									
A. 0	1078 36.7%	267 28.7%	811 40.4%	94 32.9%	185 28.4%	799 40.0%	362 39.0%	716 35.7%	483 34.0%	595 39.2%
B. 1	709 24.2%	201 21.6%	508 25.3%	69 24.1%	162 24.8%	478 23.9%	224 24.1%	485 24.2%	338 23.8%	371 24.5%
C. 2	422 14.4%	141 15.2%	281 14.0%	49 17.1%	88 13.5%	285 14.3%	133 14.3%	289 14.4%	227 16.0%	195 12.9%
D. 3	246 8.4%	91 9.8%	155 7.7%	28 9.8%	61 9.4%	157 7.9%	74 8.0%	172 8.6%	124 8.7%	122 8.0%
E. 4	148 5.0%	61 6.6%	87 4.3%	15 5.2%	44 6.7%	89 4.5%	41 4.4%	107 5.3%	69 4.9%	79 5.2%
F. 5	77 2.6%	34 3.7%	43 2.1%	9 3.1%	23 3.5%	45 2.3%	18 1.9%	59 2.9%	41 2.9%	36 2.4%
G. 6	65 2.2%	31 3.3%	34 1.7%	5 1.7%	22 3.4%	38 1.9%	17 1.8%	48 2.4%	39 2.7%	26 1.7%
H. 7	14 0.5%	3 0.3%	11 0.5%	1 0.3%	6 0.9%	7 0.4%	0 0.0%	14 0.7%	6 0.4%	8 0.5%
I. 8	22 0.7%	11 1.2%	11 0.5%	4 1.4%	9 1.4%	9 0.5%	5 0.5%	17 0.8%	14 1.0%	8 0.5%

Survey Questions	Active Participants									
	All (N=2938)	Tier		Age			Gender		Location	
		Tier 1	Tier 2	Under 21	21 to 44	45 and older	Male	Female	Urban	Rural
J. 9	5 0.2%	2 0.2%	3 0.1%	0 0.0%	1 0.2%	4 0.2%	1 0.1%	4 0.2%	2 0.1%	3 0.2%
K. 10 or more	79 2.7%	50 5.4%	29 1.4%	7 2.4%	34 5.2%	38 1.9%	30 3.2%	49 2.4%	42 3.0%	37 2.4%
L. Unsure/refused/N/A	70 2.4%	38 4.1%	32 1.6%	5 1.7%	17 2.6%	48 2.4%	23 2.5%	47 2.3%	34 2.4%	36 2.4%
14) How did you learn about the HMP?	(N=2935)									
A. Received information in the mail	554 18.9%	224 24.1%	330 16.5%	34 11.9%	117 17.9%	403 20.2%	217 23.4%	337 16.8%	251 17.7%	303 20.0%
B. Received a call	1816 61.9%	469 50.4%	1347 67.2%	223 78.0%	442 67.8%	1151 57.6%	525 56.6%	1291 64.3%	892 62.9%	924 60.9%
C. Doctor referred me	107 3.6%	45 4.8%	62 3.1%	8 2.8%	16 2.5%	83 4.2%	44 4.7%	63 3.1%	53 3.7%	54 3.6%
D. Other /N/A	398 13.6%	172 18.5%	226 11.3%	16 5.6%	62 9.5%	320 16.0%	126 13.6%	272 13.6%	196 13.8%	202 13.3%
E. More than 1 manner	60 2.0%	20 2.2%	40 2.0%	5 1.7%	15 2.3%	40 2.0%	16 1.7%	44 2.2%	27 1.9%	33 2.2%
15) What were your reasons for deciding to enroll in the HMP?	(N=2935)									
A. Learn how to better manage health problems	445 15.2%	128 13.8%	317 15.8%	37 12.9%	111 17.0%	297 14.9%	133 14.3%	312 15.5%	215 15.2%	230 15.2%
B. Learn how to identify changes in health	3 0.1%	0 0.0%	3 0.1%	1 0.3%	0 0.0%	2 0.1%	0 0.0%	3 0.1%	2 0.1%	1 0.1%

Survey Questions	Active Participants									
	All (N=2938)	Tier		Age			Gender		Location	
		Tier 1	Tier 2	Under 21	21 to 44	45 and older	Male	Female	Urban	Rural
C. Have someone to call with questions about health	176 6.0%	21 2.3%	155 7.7%	18 6.3%	46 7.1%	112 5.6%	47 5.1%	129 6.4%	92 6.5%	84 5.5%
D. Get help making health care appointments	9 0.3%	3 0.3%	6 0.3%	0 0.0%	3 0.5%	6 0.3%	2 0.2%	7 0.3%	7 0.5%	2 0.1%
E. Personal doctor recommended I enroll	47 1.6%	24 2.6%	23 1.1%	1 0.3%	4 0.6%	42 2.1%	12 1.3%	35 1.7%	30 2.1%	17 1.1%
F. Improve my health	178 6.1%	30 3.2%	148 7.4%	10 3.5%	41 6.3%	127 6.4%	57 6.1%	121 6.0%	74 5.2%	104 6.9%
G. Was invited to enroll/no specific reason	1099 37.4%	320 34.4%	779 38.9%	125 43.7%	238 36.5%	736 36.9%	384 41.4%	715 35.6%	503 35.4%	596 39.3%
H. Other/N/A	237 8.1%	112 12.0%	125 6.2%	22 7.7%	37 5.7%	178 8.9%	76 8.2%	161 8.0%	119 8.4%	118 7.8%
I. More than 1 reason	741 25.2%	292 31.4%	449 22.4%	72 25.2%	172 26.4%	497 24.9%	217 23.4%	524 26.1%	377 26.6%	364 24.0%
16) Among the reasons you gave, what was your most important reason for deciding to enroll?	(N=2935)									
A. Learn how to better manage health problems	693 23.6%	216 23.2%	477 23.8%	68 23.8%	168 25.8%	457 22.9%	200 21.6%	493 24.6%	356 25.1%	337 22.2%
B. Learn how to identify changes in health	14 0.5%	6 0.6%	8 0.4%	1 0.3%	4 0.6%	9 0.5%	3 0.3%	11 0.5%	10 0.7%	4 0.3%
C. Have someone to call with questions about health	374 12.7%	82 8.8%	292 14.6%	38 13.3%	91 14.0%	245 12.3%	103 11.1%	271 13.5%	172 12.1%	202 13.3%

Survey Questions	Active Participants									
	All (N=2938)	Tier		Age			Gender		Location	
		Tier 1	Tier 2	Under 21	21 to 44	45 and older	Male	Female	Urban	Rural
D. Get help making health care appointments	22 0.7%	3 0.3%	19 0.9%	4 1.4%	6 0.9%	12 0.6%	4 0.4%	18 0.9%	17 1.2%	5 0.3%
E. Personal doctor recommended I enroll	51 1.7%	26 2.8%	25 1.2%	1 0.3%	4 0.6%	46 2.3%	15 1.6%	36 1.8%	31 2.2%	20 1.3%
F. Improve my health	242 8.2%	57 6.1%	185 9.2%	10 3.5%	50 7.7%	182 9.1%	75 8.1%	167 8.3%	100 7.0%	142 9.4%
G. Was invited to enroll/no specific reason	1111 37.9%	323 34.7%	788 39.3%	126 44.1%	241 37.0%	744 37.3%	388 41.8%	723 36.0%	511 36.0%	600 39.6%
H. Other/N/A	358 12.2%	173 18.6%	185 9.2%	35 12.2%	70 10.7%	253 12.7%	125 13.5%	233 11.6%	183 12.9%	175 11.5%
I. More than 1 reason	70 2.4%	44 4.7%	26 1.3%	3 1.0%	18 2.8%	49 2.5%	15 1.6%	55 2.7%	39 2.7%	31 2.0%
17) How soon after you enrolled were you contacted by your Nurse Care Manager?	(N=2935)									
A. Contacted at time of enrollment	1021 34.8%	239 25.7%	782 39.0%	142 49.7%	250 38.3%	629 31.5%	317 34.2%	704 35.1%	496 35.0%	525 34.6%
B. Less than 1 weeks	737 25.1%	225 24.2%	512 25.5%	66 23.1%	171 26.2%	500 25.0%	209 22.5%	528 26.3%	354 24.9%	383 25.3%
C. 1 to 2 weeks	299 10.2%	111 11.9%	188 9.4%	31 10.8%	77 11.8%	191 9.6%	94 10.1%	205 10.2%	145 10.2%	154 10.2%
D. More than 2 weeks	219 7.5%	111 11.9%	108 5.4%	12 4.2%	39 6.0%	168 8.4%	79 8.5%	140 7.0%	107 7.5%	112 7.4%

Survey Questions	Active Participants									
	All (N=2938)	Tier		Age			Gender		Location	
		Tier 1	Tier 2	Under 21	21 to 44	45 and older	Male	Female	Urban	Rural
E. Have not been contacted - enrolled 2 weeks ago or less	4 0.1%	3 0.3%	1 0.0%	1 0.3%	0 0.0%	3 0.2%	1 0.1%	3 0.1%	2 0.1%	2 0.1%
F. Have not been contacted - enrolled 2 to 4 weeks ago	4 0.1%	2 0.2%	2 0.1%	0 0.0%	1 0.2%	3 0.2%	2 0.2%	2 0.1%	2 0.1%	2 0.1%
G. Have not been contacted - enrolled more than 4 weeks ago	4 0.1%	2 0.2%	2 0.1%	1 0.3%	0 0.0%	3 0.2%	1 0.1%	3 0.1%	2 0.1%	2 0.1%
H. Don't remember/N/A	647 22.0%	237 25.5%	410 20.4%	33 11.5%	114 17.5%	500 25.0%	225 24.2%	422 21.0%	311 21.9%	336 22.2%
18) Can you tell me the name of your Nurse Care Manager?	(N=2935)									
A. Yes	1705 58.1%	620 66.7%	1085 54.1%	113 39.5%	368 56.4%	1224 61.3%	506 54.5%	1199 59.7%	836 58.9%	869 57.3%
B. No	1228 41.8%	309 33.2%	919 45.8%	172 60.1%	284 43.6%	772 38.7%	421 45.4%	807 40.2%	581 40.9%	647 42.7%
C. N/A	2 0.1%	1 0.1%	1 0.0%	1 0.3%	0 0.0%	1 0.1%	1 0.1%	1 0.0%	2 0.1%	0 0.0%
19) About when was the last time you spoke to your Nurse Care Manager?	(N=2932)									
A. Within last week	754 25.7%	262 28.2%	492 24.6%	70 24.5%	159 24.4%	525 26.3%	236 25.5%	518 25.8%	360 25.4%	394 26.0%
B. 1 to 2 weeks ago	502 17.1%	155 16.7%	347 17.3%	52 18.2%	95 14.6%	355 17.8%	147 15.9%	355 17.7%	235 16.6%	267 17.6%

Survey Questions	Active Participants									
	All (N=2938)	Tier		Age			Gender		Location	
		Tier 1	Tier 2	Under 21	21 to 44	45 and older	Male	Female	Urban	Rural
C. 2 to 4 weeks ago	1251 42.7%	366 39.4%	885 44.2%	127 44.4%	291 44.7%	833 41.8%	415 44.8%	836 41.7%	623 44.0%	628 41.5%
D. More than 4 weeks ago	335 11.4%	113 12.2%	222 11.1%	28 9.8%	84 12.9%	223 11.2%	97 10.5%	238 11.9%	154 10.9%	181 11.9%
E. Haven't spoken to Nurse Care Manager since being evaluated	6 0.2%	3 0.3%	3 0.1%	0 0.0%	3 0.5%	3 0.2%	3 0.3%	3 0.1%	2 0.1%	4 0.3%
F. Have never spoken to Nurse Care Manager	10 0.3%	4 0.4%	6 0.3%	2 0.7%	2 0.3%	6 0.3%	5 0.5%	5 0.2%	5 0.4%	5 0.3%
G. Don't remember/N/A	74 2.5%	27 2.9%	47 2.3%	7 2.4%	17 2.6%	50 2.5%	24 2.6%	50 2.5%	38 2.7%	36 2.4%
20) How many times have you spoken to your Nurse Care Manager since enrolling in the HMP?	(N=2932)									
A. 0	13 0.4%	6 0.6%	7 0.3%	2 0.7%	3 0.5%	8 0.4%	7 0.8%	6 0.3%	5 0.4%	8 0.5%
B. 1	101 3.4%	37 4.0%	64 3.2%	8 2.8%	29 4.5%	64 3.2%	26 2.8%	75 3.7%	48 3.4%	53 3.5%
C. 2	415 14.2%	164 17.6%	251 12.5%	47 16.4%	93 14.3%	275 13.8%	118 12.7%	297 14.8%	222 15.7%	193 12.7%
D. 3	777 26.5%	191 20.5%	586 29.3%	89 31.1%	174 26.7%	514 25.8%	264 28.5%	513 25.6%	365 25.8%	412 27.2%
E. 4	524 17.9%	110 11.8%	414 20.7%	49 17.1%	118 18.1%	357 17.9%	146 15.7%	378 18.9%	244 17.2%	280 18.5%

Survey Questions	Active Participants									
	All (N=2938)	Tier		Age			Gender		Location	
		Tier 1	Tier 2	Under 21	21 to 44	45 and older	Male	Female	Urban	Rural
F. 5	262 8.9%	76 8.2%	186 9.3%	27 9.4%	52 8.0%	183 9.2%	94 10.1%	168 8.4%	118 8.3%	144 9.5%
G. 6	248 8.5%	73 7.8%	175 8.7%	22 7.7%	59 9.1%	167 8.4%	87 9.4%	161 8.0%	120 8.5%	128 8.4%
H. 7 or more	404 13.8%	170 18.3%	234 11.7%	25 8.7%	89 13.7%	290 14.5%	133 14.3%	271 13.5%	208 14.7%	196 12.9%
I. At least 1 time per month	17 0.6%	11 1.2%	6 0.3%	0 0.0%	5 0.8%	12 0.6%	7 0.8%	10 0.5%	9 0.6%	8 0.5%
J. Don't remember/unsure	171 5.8%	92 9.9%	79 3.9%	17 5.9%	29 4.5%	125 6.3%	45 4.9%	126 6.3%	78 5.5%	93 6.1%
21) [Tier 1 only] How many times have you met your Nurse Care Manager in person?	(N=930)									
A. 0	11 1.2%	11 1.2%	0 N/A	1 1.8%	3 1.5%	7 1.0%	4 1.3%	7 1.1%	6 1.3%	5 1.1%
B. 1	112 12.0%	112 12.0%	0 N/A	13 22.8%	30 15.5%	69 10.2%	29 9.3%	83 13.4%	55 11.6%	57 12.5%
C. 2	211 22.7%	211 22.7%	0 N/A	13 22.8%	41 21.1%	157 23.1%	68 21.8%	143 23.1%	111 23.4%	100 21.9%
D. 3	202 21.7%	202 21.7%	0 N/A	12 21.1%	42 21.6%	148 21.8%	75 24.0%	127 20.6%	108 22.8%	94 20.6%
E. 4	81 8.7%	81 8.7%	0 N/A	5 8.8%	13 6.7%	63 9.3%	28 9.0%	53 8.6%	37 7.8%	44 9.6%
F. 5	44 4.7%	44 4.7%	0 N/A	1 1.8%	10 5.2%	33 4.9%	18 5.8%	26 4.2%	20 4.2%	24 5.3%

Survey Questions	Active Participants									
	All (N=2938)	Tier		Age			Gender		Location	
		Tier 1	Tier 2	Under 21	21 to 44	45 and older	Male	Female	Urban	Rural
G. 6 or more	207 22.3%	207 22.3%	0 N/A	11 19.3%	47 24.2%	149 21.9%	71 22.8%	136 22.0%	104 21.9%	103 22.6%
H. Don't remember	62 6.7%	62 6.7%	0 N/A	1 1.8%	8 4.1%	53 7.8%	19 6.1%	43 7.0%	33 7.0%	29 6.4%
22) Did your Nurse Care Manager give you a telephone number to call if you needed help with your care?	(N=2930)									
A. Yes	2822 96.3%	896 96.6%	1926 96.2%	281 98.3%	628 96.6%	1913 95.9%	895 96.5%	1927 96.2%	1364 96.3%	1458 96.4%
B. No	86 2.9%	26 2.8%	60 3.0%	3 1.0%	17 2.6%	66 3.3%	25 2.7%	61 3.0%	40 2.8%	46 3.0%
C. Didn't have first visit yet	3 0.1%	3 0.3%	0 0.0%	1 0.3%	0 0.0%	2 0.1%	0 0.0%	3 0.1%	2 0.1%	1 0.1%
D. Don't remember/N/A	19 0.6%	3 0.3%	16 0.8%	1 0.3%	5 0.8%	13 0.7%	7 0.8%	12 0.6%	11 0.8%	8 0.5%
23) Have you tried to call your Nurse Care Manager at the number you were given?	(N=2822)									
A. Yes	911 32.3%	353 39.4%	558 29.0%	65 23.1%	212 33.8%	634 33.1%	278 31.1%	633 32.8%	459 33.7%	452 31.0%
B. No	1911 67.7%	543 60.6%	1368 71.0%	216 76.9%	416 66.2%	1279 66.9%	617 68.9%	1294 67.2%	905 66.3%	1006 69.0%

Survey Questions	Active Participants									
	All (N=2938)	Tier		Age			Gender		Location	
		Tier 1	Tier 2	Under 21	21 to 44	45 and older	Male	Female	Urban	Rural
24) Thinking about the last time you called your Nurse, what was the reason for your call?	(N=911)									
A. Routine health question	501 55.0%	153 43.3%	348 62.4%	38 58.5%	115 54.2%	348 54.9%	157 56.5%	344 54.3%	249 54.2%	252 55.8%
B. Urgent health problem	23 2.5%	14 4.0%	9 1.6%	0 0.0%	6 2.8%	17 2.7%	5 1.8%	18 2.8%	8 1.7%	15 3.3%
C. Seeking assistance in scheduling an appointment	127 13.9%	89 25.2%	38 6.8%	9 13.8%	29 13.7%	89 14.0%	31 11.2%	96 15.2%	75 16.3%	52 11.5%
D. Returning call from Nurse Care Manager	102 11.2%	15 4.2%	87 15.6%	11 16.9%	26 12.3%	65 10.3%	27 9.7%	75 11.8%	52 11.3%	50 11.1%
E. Other/N/A	154 16.9%	80 22.7%	74 13.3%	7 10.8%	36 17.0%	111 17.5%	56 20.1%	98 15.5%	75 16.3%	79 17.5%
F. More than 1 reason	4 0.4%	2 0.6%	2 0.4%	0 0.0%	0 0.0%	4 0.6%	2 0.7%	2 0.3%	0 0.0%	4 0.9%
25) Did you reach your Nurse Care Manager immediately?										
A. Reached immediately (at time of call)	497 54.6%	210 59.5%	287 51.4%	39 60.0%	120 56.6%	338 53.3%	146 52.5%	351 55.5%	247 53.8%	250 55.3%
B. Called back within 1 hour	146 16.0%	50 14.2%	96 17.2%	6 9.2%	39 18.4%	101 15.9%	34 12.2%	112 17.7%	78 17.0%	68 15.0%
C. Called back in more than 1 hour but same day	116 12.7%	36 10.2%	80 14.3%	6 9.2%	23 10.8%	87 13.7%	41 14.7%	75 11.8%	54 11.8%	62 13.7%

Survey Questions	Active Participants									
	All (N=2938)	Tier		Age			Gender		Location	
		Tier 1	Tier 2	Under 21	21 to 44	45 and older	Male	Female	Urban	Rural
D. Called back the next day	60 6.6%	17 4.8%	43 7.7%	8 12.3%	12 5.7%	40 6.3%	28 10.1%	32 5.1%	33 7.2%	27 6.0%
E. Called back 2 or more days later	20 2.2%	8 2.3%	12 2.2%	2 3.1%	3 1.4%	15 2.4%	6 2.2%	14 2.2%	8 1.7%	12 2.7%
F. Never called back	39 4.3%	21 5.9%	18 3.2%	3 4.6%	6 2.8%	30 4.7%	12 4.3%	27 4.3%	22 4.8%	17 3.8%
G. Other	33 3.6%	11 3.1%	22 3.9%	1 1.5%	9 4.2%	23 3.6%	11 4.0%	22 3.5%	17 3.7%	16 3.5%
26) Which of the following things has your Nurse done for you?	(N=2928)									
(1) Asked questions about your health problems or concerns										
A. Yes	2886 98.6%	907 97.7%	1979 99.0%	281 98.3%	642 98.8%	1963 98.5%	912 98.5%	1974 98.6%	1398 98.7%	1488 98.5%
B. No	21 0.7%	11 1.2%	10 0.5%	2 0.7%	3 0.5%	16 0.8%	4 0.4%	17 0.8%	11 0.8%	10 0.7%
C. Have not had first visit/too soon	15 0.5%	7 0.8%	8 0.4%	2 0.7%	4 0.6%	9 0.5%	8 0.9%	7 0.3%	5 0.4%	10 0.7%
D. Unsure/N/A	6 0.2%	3 0.3%	3 0.2%	1 0.3%	1 0.2%	4 0.2%	2 0.2%	4 0.2%	3 0.2%	3 0.2%

Survey Questions	Active Participants									
	All (N=2938)	Tier		Age			Gender		Location	
		Tier 1	Tier 2	Under 21	21 to 44	45 and older	Male	Female	Urban	Rural
(2) Provided instructions about taking care of your health problems or concerns										
A. Yes	2797 95.5%	865 93.2%	1932 96.6%	269 94.1%	625 96.2%	1903 95.5%	881 95.1%	1916 95.7%	1359 95.9%	1438 95.2%
B. No	103 3.5%	49 5.3%	54 2.7%	14 4.9%	19 2.9%	70 3.5%	30 3.2%	73 3.6%	46 3.2%	57 3.8%
C. Have not had first visit/too soon	15 0.5%	7 0.8%	8 0.4%	2 0.7%	4 0.6%	9 0.5%	8 0.9%	7 0.3%	5 0.4%	10 0.7%
D. Unsure/N/A	13 0.4%	7 0.8%	6 0.3%	1 0.3%	2 0.3%	10 0.5%	7 0.8%	6 0.3%	7 0.5%	6 0.4%
(3) Helped you to identify changes in your health that might be an early sign of a problem										
A. Yes	1647 56.3%	524 56.5%	1123 56.2%	123 43.0%	391 60.2%	1133 56.9%	516 55.7%	1131 56.5%	805 56.8%	842 55.7%
B. No	1229 42.0%	371 40.0%	858 42.9%	156 54.5%	250 38.5%	823 41.3%	386 41.7%	843 42.1%	590 41.6%	639 42.3%
C. Have not had first visit/too soon	16 0.5%	8 0.9%	8 0.4%	2 0.7%	4 0.6%	10 0.5%	9 1.0%	7 0.3%	5 0.4%	11 0.7%
D. Unsure/N/A	36 1.2%	25 2.7%	11 0.6%	5 1.7%	5 0.8%	26 1.3%	15 1.6%	21 1.0%	17 1.2%	19 1.3%

Survey Questions	Active Participants									
	All (N=2938)	Tier		Age			Gender		Location	
		Tier 1	Tier 2	Under 21	21 to 44	45 and older	Male	Female	Urban	Rural
(4) Answered questions about your health										
A. Yes	2771 94.6%	868 93.5%	1903 95.2%	266 93.0%	619 95.2%	1886 94.7%	867 93.6%	1904 95.1%	1349 95.2%	1422 94.1%
B. No	126 4.3%	43 4.6%	83 4.2%	16 5.6%	24 3.7%	86 4.3%	44 4.8%	82 4.1%	55 3.9%	71 4.7%
C. Member didn't ask	3 0.1%	3 0.3%	0 0.0%	1 0.3%	1 0.2%	1 0.1%	2 0.2%	1 0.0%	2 0.1%	1 0.1%
D. Have not had first visit/too soon	15 0.5%	7 0.8%	8 0.4%	2 0.7%	4 0.6%	9 0.5%	8 0.9%	7 0.3%	5 0.4%	10 0.7%
E. Unsure/N/A	13 0.4%	7 0.8%	6 0.3%	1 0.3%	2 0.3%	10 0.5%	5 0.5%	8 0.4%	6 0.4%	7 0.5%
(5) Helped you to make and keep health care appointments for medical problems										
A. Yes	1420 48.5%	426 45.9%	994 49.7%	103 36.0%	350 53.8%	967 48.5%	411 44.4%	1009 50.4%	707 49.9%	713 47.2%
B. No	1470 50.2%	480 51.7%	990 49.5%	177 61.9%	292 44.9%	1001 50.3%	498 53.8%	972 48.6%	696 49.1%	774 51.2%
C. Have not had first visit/too soon	18 0.6%	9 1.0%	9 0.5%	2 0.7%	4 0.6%	12 0.6%	10 1.1%	8 0.4%	6 0.4%	12 0.8%
D. Unsure/N/A	20 0.7%	13 1.4%	7 0.4%	4 1.4%	4 0.6%	12 0.6%	7 0.8%	13 0.6%	8 0.6%	12 0.8%

Survey Questions	Active Participants									
	All (N=2938)	Tier		Age			Gender		Location	
		Tier 1	Tier 2	Under 21	21 to 44	45 and older	Male	Female	Urban	Rural
(6) Helped you to make and keep health care appointments for mental health or substance abuse problems										
A. Yes	713 24.4%	207 22.3%	506 25.3%	36 12.6%	195 30.0%	482 24.2%	195 21.1%	518 25.9%	350 24.7%	363 24.0%
B. No	2173 74.2%	697 75.1%	1476 73.8%	243 85.0%	443 68.2%	1487 74.6%	714 77.1%	1459 72.9%	1050 74.1%	1123 74.3%
C. Have not had first visit/too soon	18 0.6%	9 1.0%	9 0.5%	2 0.7%	4 0.6%	12 0.6%	10 1.1%	8 0.4%	6 0.4%	12 0.8%
D. Unsure/N/A	24 0.8%	15 1.6%	9 0.5%	5 1.7%	8 1.2%	11 0.6%	7 0.8%	17 0.8%	11 0.8%	13 0.9%
27) For each activity performed, how satisfied have you been with the help you have received?	(N=2886)									
(1) Learning about you and your health care needs										
A. Very satisfied	2581 89.4%	804 88.6%	1777 89.8%	255 90.7%	569 88.6%	1757 89.5%	812 89.0%	1769 89.6%	1241 88.8%	1340 90.1%
B. Somewhat satisfied	263 9.1%	84 9.3%	179 9.0%	24 8.5%	70 10.9%	169 8.6%	89 9.8%	174 8.8%	135 9.7%	128 8.6%
C. Somewhat dissatisfied	26 0.9%	13 1.4%	13 0.7%	1 0.4%	2 0.3%	23 1.2%	8 0.9%	18 0.9%	12 0.9%	14 0.9%

Survey Questions	Active Participants									
	All (N=2938)	Tier		Age			Gender		Location	
		Tier 1	Tier 2	Under 21	21 to 44	45 and older	Male	Female	Urban	Rural
D. Very dissatisfied	12 0.4%	6 0.7%	6 0.3%	0 0.0%	1 0.2%	11 0.6%	3 0.3%	9 0.5%	7 0.5%	5 0.3%
E. Unsure/N/A	4 0.1%	0 0.0%	4 0.2%	1 0.4%	0 0.0%	3 0.2%	0 0.0%	4 0.2%	3 0.2%	1 0.1%
(2) Getting easy to understand instructions about taking care of health problems or concerns	(N=2797)									
A. Very satisfied	2523 90.2%	775 89.6%	1748 90.5%	245 91.1%	562 89.9%	1716 90.2%	794 90.1%	1729 90.2%	1214 89.3%	1309 91.0%
B. Somewhat satisfied	243 8.7%	77 8.9%	166 8.6%	23 8.6%	62 9.9%	158 8.3%	79 9.0%	164 8.6%	128 9.4%	115 8.0%
C. Somewhat dissatisfied	20 0.7%	10 1.2%	10 0.5%	0 0.0%	1 0.2%	19 1.0%	7 0.8%	13 0.7%	8 0.6%	12 0.8%
D. Very dissatisfied	8 0.3%	3 0.3%	5 0.3%	0 0.0%	0 0.0%	8 0.4%	1 0.1%	7 0.4%	6 0.4%	2 0.1%
E. Unsure/N/A	3 0.1%	0 0.0%	3 0.2%	1 0.4%	0 0.0%	2 0.1%	0 0.0%	3 0.2%	3 0.2%	0 0.0%
(3) Getting help identifying changes in your health that might be an early sign of a problem	(N=1647)									
A. Very satisfied	1518 92.2%	488 93.1%	1030 91.7%	115 93.5%	357 91.3%	1046 92.3%	474 91.9%	1044 92.3%	742 92.2%	776 92.2%
B. Somewhat satisfied	120 7.3%	33 6.3%	87 7.7%	7 5.7%	34 8.7%	79 7.0%	40 7.8%	80 7.1%	58 7.2%	62 7.4%

Survey Questions	Active Participants									
	All (N=2938)	Tier		Age			Gender		Location	
		Tier 1	Tier 2	Under 21	21 to 44	45 and older	Male	Female	Urban	Rural
C. Somewhat dissatisfied	5 0.3%	2 0.4%	3 0.3%	0 0.0%	0 0.0%	5 0.4%	2 0.4%	3 0.3%	2 0.2%	3 0.4%
D. Very dissatisfied	2 0.1%	1 0.2%	1 0.1%	0 0.0%	0 0.0%	2 0.2%	0 0.0%	2 0.2%	1 0.1%	1 0.1%
E. Unsure/N/A	2 0.1%	0 0.0%	2 0.2%	1 0.8%	0 0.0%	1 0.1%	0 0.0%	2 0.2%	2 0.2%	0 0.0%
(4) Answering questions about your health	(N=2771)									
A. Very satisfied	2510 90.6%	783 90.2%	1727 90.8%	243 91.4%	555 89.7%	1712 90.8%	785 90.5%	1725 90.6%	1218 90.3%	1292 90.9%
B. Somewhat satisfied	238 8.6%	78 9.0%	160 8.4%	22 8.3%	62 10.0%	154 8.2%	76 8.8%	162 8.5%	117 8.7%	121 8.5%
C. Somewhat dissatisfied	12 0.4%	5 0.6%	7 0.4%	0 0.0%	1 0.2%	11 0.6%	3 0.3%	9 0.5%	6 0.4%	6 0.4%
D. Very dissatisfied	9 0.3%	2 0.2%	7 0.4%	0 0.0%	1 0.2%	8 0.4%	3 0.3%	6 0.3%	6 0.4%	3 0.2%
E. Unsure/N/A	2 0.1%	0 0.0%	2 0.1%	1 0.4%	0 0.0%	1 0.1%	0 0.0%	2 0.1%	2 0.1%	0 0.0%
(5) Helping you make and keep health care appointments for medical problems	(N=1420)									
A. Very satisfied	1344 94.6%	399 93.7%	945 95.1%	98 95.1%	330 94.3%	916 94.7%	389 94.6%	955 94.6%	661 93.5%	683 95.8%
B. Somewhat satisfied	71 5.0%	25 5.9%	46 4.6%	4 3.9%	18 5.1%	49 5.1%	21 5.1%	50 5.0%	42 5.9%	29 4.1%

Survey Questions	Active Participants									
	All (N=2938)	Tier		Age			Gender		Location	
		Tier 1	Tier 2	Under 21	21 to 44	45 and older	Male	Female	Urban	Rural
C. Somewhat dissatisfied	2 0.1%	2 0.5%	0 0.0%	0 0.0%	1 0.3%	1 0.1%	0 0.0%	2 0.2%	1 0.1%	1 0.1%
D. Very dissatisfied	1 0.1%	0 0.0%	1 0.1%	0 0.0%	1 0.3%	0 0.0%	1 0.2%	0 0.0%	1 0.1%	0 0.0%
E. Unsure/N/A	2 0.1%	0 0.0%	2 0.2%	1 1.0%	0 0.0%	1 0.1%	0 0.0%	2 0.2%	2 0.3%	0 0.0%
(6) Helping you make and keep health care appointments for mental health or substance abuse problems	(N=713)									
A. Very satisfied	674 94.5%	192 92.8%	482 95.3%	35 97.2%	182 93.3%	457 94.8%	189 96.9%	485 93.6%	334 95.4%	340 93.7%
B. Somewhat satisfied	36 5.0%	14 6.8%	22 4.3%	0 0.0%	13 6.7%	23 4.8%	6 3.1%	30 5.8%	13 3.7%	23 6.3%
C. Somewhat dissatisfied	1 0.1%	1 0.5%	0 0.0%	0 0.0%	0 0.0%	1 0.2%	0 0.0%	1 0.2%	1 0.3%	0 0.0%
D. Very dissatisfied	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
E. Unsure/N/A	2 0.3%	0 0.0%	2 0.4%	1 2.8%	0 0.0%	1 0.2%	0 0.0%	2 0.4%	2 0.6%	0 0.0%
28) Overall, how satisfied are you with your Nurse Care Manager?	(N=2928)									
A. Very satisfied	2572 87.8%	802 86.4%	1770 88.5%	255 89.2%	569 87.5%	1748 87.8%	803 86.7%	1769 88.4%	1240 87.5%	1332 88.2%

Survey Questions	Active Participants									
	All (N=2938)	Tier		Age			Gender		Location	
		Tier 1	Tier 2	Under 21	21 to 44	45 and older	Male	Female	Urban	Rural
B. Somewhat satisfied	275 9.4%	86 9.3%	189 9.5%	28 9.8%	70 10.8%	177 8.9%	100 10.8%	175 8.7%	133 9.4%	142 9.4%
C. Somewhat dissatisfied	26 0.9%	15 1.6%	11 0.6%	1 0.3%	2 0.3%	23 1.2%	8 0.9%	18 0.9%	12 0.8%	14 0.9%
D. Very dissatisfied	22 0.8%	13 1.4%	9 0.5%	0 0.0%	2 0.3%	20 1.0%	3 0.3%	19 0.9%	14 1.0%	8 0.5%
E. Have not had first visit/ too soon	17 0.6%	9 1.0%	8 0.4%	2 0.7%	4 0.6%	11 0.6%	9 1.0%	8 0.4%	6 0.4%	11 0.7%
F. Unsure/N/A	16 0.5%	3 0.3%	13 0.7%	0 0.0%	3 0.5%	13 0.7%	3 0.3%	13 0.6%	12 0.8%	4 0.3%
29) Did you know that the HMP has a website?	(N=2928)									
A. Yes	1281 43.8%	367 39.5%	914 45.7%	141 49.3%	313 48.2%	827 41.5%	409 44.2%	872 43.6%	639 45.1%	642 42.5%
B. No	1619 55.3%	551 59.4%	1068 53.4%	143 50.0%	333 51.2%	1143 57.4%	510 55.1%	1109 55.4%	762 53.8%	857 56.7%
C. Unsure/too soon/N/A	28 1.0%	10 1.1%	18 0.9%	2 0.7%	4 0.6%	22 1.1%	7 0.8%	21 1.0%	16 1.1%	12 0.8%
30) Have you ever visited the website?	(N=1281)									
A. Yes	42 3.3%	14 3.8%	28 3.1%	8 5.7%	17 5.4%	17 2.1%	11 2.7%	31 3.6%	27 4.2%	15 2.3%
B. No	1239 96.7%	353 96.2%	886 96.9%	133 94.3%	296 94.6%	810 97.9%	398 97.3%	841 96.4%	612 95.8%	627 97.7%

Survey Questions	Active Participants									
	All (N=2938)	Tier		Age			Gender		Location	
		Tier 1	Tier 2	Under 21	21 to 44	45 and older	Male	Female	Urban	Rural
31) Thinking about the last time you visited the website, what was your reason for visiting it?	(N=42)									
A. Seeking general information about the program	26 61.9%	6 42.9%	20 71.4%	5 62.5%	10 58.8%	11 64.7%	7 63.6%	19 61.3%	16 59.3%	10 66.7%
B. Routine health question/seeking general health information	4 9.5%	2 14.3%	2 7.1%	1 12.5%	1 5.9%	2 11.8%	0 0.0%	4 12.9%	3 11.1%	1 6.7%
C. Urgent health problem	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
D. Seeking assistance in scheduling an appointment	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
E. No specific reason	8 19.0%	3 21.4%	5 17.9%	1 12.5%	4 23.5%	3 17.6%	3 27.3%	5 16.1%	6 22.2%	2 13.3%
F. Other	2 4.8%	1 7.1%	1 3.6%	0 0.0%	1 5.9%	1 5.9%	0 0.0%	2 6.5%	1 3.7%	1 6.7%
G. More than 1 reason	2 4.8%	2 14.3%	0 0.0%	1 12.5%	1 5.9%	0 0.0%	1 9.1%	1 3.2%	1 3.7%	1 6.7%
32) Was the website helpful to you?	(N=42)									
A. Yes	39 92.9%	11 78.6%	28 100.0%	8 100.0%	15 88.2%	16 94.1%	10 90.9%	29 93.5%	25 92.6%	14 93.3%
B. No	2 4.8%	2 14.3%	0 0.0%	0 0.0%	2 11.8%	0 0.0%	1 9.1%	1 3.2%	1 3.7%	1 6.7%

Survey Questions	Active Participants									
	All (N=2938)	Tier		Age			Gender		Location	
		Tier 1	Tier 2	Under 21	21 to 44	45 and older	Male	Female	Urban	Rural
C. Don't remember	1 2.4%	1 7.1%	0 0.0%	0 0.0%	0 0.0%	1 5.9%	0 0.0%	1 3.2%	1 3.7%	0 0.0%
33) Overall, how satisfied are you with your whole experience in the HMP?	(N=2928)									
A. Very satisfied	2539 86.7%	795 85.7%	1744 87.2%	251 87.8%	566 87.1%	1722 86.4%	790 85.3%	1749 87.4%	1227 86.6%	1312 86.8%
B. Somewhat satisfied	296 10.1%	94 10.1%	202 10.1%	30 10.5%	67 10.3%	199 10.0%	107 11.6%	189 9.4%	141 10.0%	155 10.3%
C. Somewhat dissatisfied	32 1.1%	14 1.5%	18 0.9%	0 0.0%	8 1.2%	24 1.2%	12 1.3%	20 1.0%	15 1.1%	17 1.1%
D. Very dissatisfied	23 0.8%	13 1.4%	10 0.5%	0 0.0%	2 0.3%	21 1.1%	3 0.3%	20 1.0%	13 0.9%	10 0.7%
E. Have not had first visit/ too soon	17 0.6%	9 1.0%	8 0.4%	2 0.7%	4 0.6%	11 0.6%	9 1.0%	8 0.4%	6 0.4%	11 0.7%
F. Unsure/N/A	21 0.7%	3 0.3%	18 0.9%	3 1.0%	3 0.5%	15 0.8%	5 0.5%	16 0.8%	15 1.1%	6 0.4%
34) Would you recommend the HMP to a friend who has health care needs like yours?	(N=2928)									
A. Yes	2807 95.9%	879 94.7%	1928 96.4%	279 97.6%	626 96.3%	1902 95.5%	880 95.0%	1927 96.3%	1360 96.0%	1447 95.8%
B. No	61 2.1%	27 2.9%	34 1.7%	3 1.0%	11 1.7%	47 2.4%	26 2.8%	35 1.7%	26 1.8%	35 2.3%

Survey Questions	Active Participants									
	All (N=2938)	Tier		Age			Gender		Location	
		Tier 1	Tier 2	Under 21	21 to 44	45 and older	Male	Female	Urban	Rural
C. Have not had first visit/ too soon	22 0.8%	13 1.4%	9 0.5%	2 0.7%	6 0.9%	14 0.7%	10 1.1%	12 0.6%	8 0.6%	14 0.9%
D. Unsure/N/A	38 1.3%	9 1.0%	29 1.5%	2 0.7%	7 1.1%	29 1.5%	10 1.1%	28 1.4%	23 1.6%	15 1.0%
35) Do you have any suggestions for improving the HMP?	(N=2927)									
A. Yes	215 7.3%	82 8.8%	133 6.7%	12 4.2%	51 7.9%	152 7.6%	72 7.8%	143 7.1%	107 7.6%	108 7.1%
B. No	2647 90.4%	813 87.7%	1834 91.7%	273 95.5%	582 89.7%	1792 90.0%	835 90.2%	1812 90.6%	1277 90.2%	1370 90.7%
C. Yes, but pertains to SoonerCare	44 1.5%	21 2.3%	23 1.2%	0 0.0%	8 1.2%	36 1.8%	13 1.4%	31 1.5%	24 1.7%	20 1.3%
D. Too soon to tell/don't want to answer/N/A	21 0.7%	11 1.2%	10 0.5%	1 0.3%	8 1.2%	12 0.6%	6 0.6%	15 0.7%	8 0.6%	13 0.9%
36) Overall, how would you rate your health today?	(N=2927)									
A. Excellent	145 5.0%	39 4.2%	106 5.3%	34 11.9%	30 4.6%	81 4.1%	53 5.7%	92 4.6%	63 4.4%	82 5.4%
B. Good	773 26.4%	215 23.2%	558 27.9%	140 49.0%	171 26.3%	462 23.2%	265 28.6%	508 25.4%	387 27.3%	386 25.5%
C. Fair	1327 45.3%	400 43.1%	927 46.4%	88 30.8%	313 48.2%	926 46.5%	387 41.8%	940 47.0%	625 44.1%	702 46.5%
D. Poor	679 23.2%	272 29.3%	407 20.4%	24 8.4%	134 20.6%	521 26.2%	220 23.8%	459 22.9%	339 23.9%	340 22.5%

Survey Questions	Active Participants									
	All (N=2938)	Tier		Age			Gender		Location	
		Tier 1	Tier 2	Under 21	21 to 44	45 and older	Male	Female	Urban	Rural
E. N/A	3 0.1%	1 0.1%	2 0.1%	0 0.0%	1 0.2%	2 0.1%	1 0.1%	2 0.1%	2 0.1%	1 0.1%
37) Compared to before you enrolled in the HMP, how has your health changed?	(N=2927)									
A. Better	780 26.6%	249 26.9%	531 26.6%	77 26.9%	195 30.0%	508 25.5%	252 27.2%	528 26.4%	387 27.3%	393 26.0%
B. Worse	222 7.6%	78 8.4%	144 7.2%	11 3.8%	47 7.2%	164 8.2%	58 6.3%	164 8.2%	103 7.3%	119 7.9%
C. About the same	1911 65.3%	593 64.0%	1318 65.9%	197 68.9%	403 62.1%	1311 65.8%	610 65.9%	1301 65.0%	920 65.0%	991 65.6%
D. Not in HMP long enough	4 0.1%	1 0.1%	3 0.2%	0 0.0%	1 0.2%	3 0.2%	3 0.3%	1 0.0%	0 0.0%	4 0.3%
E. Unsure/N/A	10 0.3%	6 0.6%	4 0.2%	1 0.3%	3 0.5%	6 0.3%	3 0.3%	7 0.3%	6 0.4%	4 0.3%
38) Do you think the HMP has contributed to your improvement in health?	(N=780)									
A. Yes	717 91.9%	226 90.8%	491 92.5%	65 84.4%	176 90.3%	476 93.7%	234 92.9%	483 91.5%	359 92.8%	358 91.1%
B. No	55 7.1%	19 7.6%	36 6.8%	12 15.6%	18 9.2%	25 4.9%	16 6.3%	39 7.4%	25 6.5%	30 7.6%
C. Not in HMP long enough	1 0.1%	1 0.4%	0 0.0%	0 0.0%	0 0.0%	1 0.2%	0 0.0%	1 0.2%	1 0.3%	0 0.0%

Survey Questions	Active Participants									
	All (N=2938)	Tier		Age			Gender		Location	
		Tier 1	Tier 2	Under 21	21 to 44	45 and older	Male	Female	Urban	Rural
D. Unsure/N/A	7 0.9%	3 1.2%	4 0.8%	0 0.0%	1 0.5%	6 1.2%	2 0.8%	5 0.9%	2 0.5%	5 1.3%
39) What is your race or ethnicity?	(N=2927)									
A. White/Caucasian	1957 66.9%	629 67.9%	1328 66.4%	149 52.1%	443 68.3%	1365 68.5%	594 64.1%	1363 68.1%	875 61.8%	1082 71.6%
B. Black/African-American	345 11.8%	118 12.7%	227 11.4%	38 13.3%	72 11.1%	235 11.8%	107 11.6%	238 11.9%	263 18.6%	82 5.4%
C. Asian	3 0.1%	0 0.0%	3 0.2%	0 0.0%	1 0.2%	2 0.1%	0 0.0%	3 0.1%	2 0.1%	1 0.1%
D. Native Hawaiian or other Pacific Islander	3 0.1%	0 0.0%	3 0.2%	0 0.0%	0 0.0%	3 0.2%	0 0.0%	3 0.1%	1 0.1%	2 0.1%
E. American Indian/Native American	281 9.6%	78 8.4%	203 10.2%	29 10.1%	69 10.6%	183 9.2%	102 11.0%	179 8.9%	108 7.6%	173 11.4%
F. Hispanic/Latino	59 2.0%	23 2.5%	36 1.8%	19 6.6%	14 2.2%	26 1.3%	20 2.2%	39 1.9%	39 2.8%	20 1.3%
G. Other/multi-racial	251 8.6%	70 7.6%	181 9.1%	48 16.8%	46 7.1%	157 7.9%	95 10.3%	156 7.8%	108 7.6%	143 9.5%
H. N/A/refused	28 1.0%	9 1.0%	19 1.0%	3 1.0%	4 0.6%	21 1.1%	8 0.9%	20 1.0%	20 1.4%	8 0.5%

APPENDIX C – PARTICIPANT UTILIZATION AND EXPENDITURE DATA

Appendix C includes a full set of demographic, utilization and expenditure exhibits for nurse care managed participants. The exhibits are listed below.

<u>Exhibit</u>	<u>Description</u>
C-1	Members Selected for Potential Engagement
C-2	SoonerCare HMP Enrollment Summary – Engaged Members (Participants)
C-3	Expenditures for Participants
C-4	Expenditure Distribution for Participants
C-5	Highest Cost Participants – Expenditures as Percent of Total
C-6	Participants and Expenditures by Age Cohort
C-7	Participants and Expenditures by Urban/Rural
C-8	Incidence of Target Conditions for Participants
C-9	Most Common Diagnoses for Participants
C-10	Most Expensive (Incidence) Diagnoses for Participants
C-11	Physical Health Co-morbidity Summary for Participants
C-12	Behavioral Health Co-morbidity Summary for Participants
C-13	Frequency of Most Common Co-morbidities for Participants
C-14	Participants with Asthma with/without Behavioral Health Co-morbidity
C-15	Participants with COPD with/without Behavioral Health Co-morbidity
C-16	Participants with Heart Failure with/without Behavioral Health Co-morbidity
C-17	Participants with CAD with/without Behavioral Health Co-morbidity
C-18	Participants with Diabetes with/without Behavioral Health Co-morbidity
C-19	Participants with Hypertension with/without Behavioral Health Co-morbidity
C-20	Utilization and Expenditure Profile: Participants with Asthma
C-21	Utilization and Expenditure Profile: Participants with COPD
C-22	Utilization and Expenditure Profile: Participants with Heart Failure
C-23	Utilization and Expenditure Profile: Participants with CAD
C-24	Utilization and Expenditure Profile: Participants with Diabetes

<u>Exhibit</u>	<u>Description</u>
C-25	Utilization and Expenditure Profile: Participants with Hypertension
C-26	Utilization and Expenditure Profile: Participants with CVA
C-27	Utilization and Expenditure Profile: Participants with Depression
C-28	Utilization and Expenditure Profile: Participants with HIV
C-29	Utilization and Expenditure Profile: Participants with Hyperlipidemia
C-30	Utilization and Expenditure Profile: Participants with Lower Back Pain
C-31	Utilization and Expenditure Profile: Participants with Migraine Headaches
C-32	Utilization and Expenditure Profile: Participants with Multiple Sclerosis
C-33	Utilization and Expenditure Profile: Participants with Renal Failure
C-34	Utilization and Expenditure Profile: Participants with Rheumatoid Arthritis
C-35	Utilization and Expenditure Profile: Participants with Schizophrenia
C-36	Utilization and Expenditure Profile: All Participants

Exhibit C-1 – Members Selected for Potential Engagement

Enrollment Group	Members Selected	Members Engaged	Percent Engaged
Tier 1	11,990	3,385	28.2%
Tier 2	46,871	14,629	31.2%
Tiers 1 & 2	58,861	18,014	30.6%

Notes

- *Includes all members selected through April, 2012 MEDai extracts*

Exhibit C-2 – SoonerCare HMP Enrollment Summary – Engaged Members (Participants)

Enrollment Group	Pre-Engagement: 13 to 24 months	Pre-Engagement: 1 to 12 months	Engaged Period	Post-Engagement
Tier 1				
Members	2,775	3,039	3,039	2,259
Member Months	25,318	35,601	36,988	44,971
Average Months per Member	9.1	11.7	12.2	19.9
Tier 2				
Members	11,804	13,412	13,412	10,432
Member Months	108,853	155,256	156,904	197,435
Average Months per Member	9.2	11.6	11.7	18.9
Tiers 1 & 2				
Members	14,579	16,451	16,451	12,691
Member Months	134,171	190,857	193,892	242,406
Average Months per Member	9.2	11.6	11.8	19.1

Notes

- Engagement dates 2/08 through 06/12
- Client totals represent unduplicated counts of program participants
- Engaged client counts include those engaged more than two months and having MEDai forecast data for the month of engagement (N=16,451)
- Member month counts based on the status of the 15th of the month
- Look-back periods (Pre-Engagement: 13-24 months, Pre-Engagement: 1-12 months) are based on an individual client's engagement date
- Post-engagement counts based on clients who disenrolled from HMP for any reason

Exhibit C-3 – Expenditures for Participants

Enrollment Group	Pre-Engagement: 13 to 24 months	Pre-Engagement: 1 to 12 months	Engaged Period	Post-Engagement
Tier 1				
Expenditures	\$ 66,245,164	\$ 92,910,234	\$ 82,981,810	\$ 79,473,187
Member Months	25,318	35,601	36,988	44,971
Per Member, Per Month Costs	\$ 2,617	\$ 2,610	\$ 2,243	\$ 1,767
Tier 2				
Expenditures	\$ 97,217,155	\$ 152,853,143	\$ 171,408,781	\$ 160,536,419
Member Months	108,853	155,256	156,904	197,435
Per Member, Per Month Costs	\$ 893	\$ 985	\$ 1,092	\$ 813
Tiers 1 & 2				
Expenditures	\$ 163,462,319	\$ 245,763,377	\$ 254,390,590	\$ 240,009,606
Member Months	134,171	190,857	193,892	242,406
Per Member, Per Month Costs	\$ 1,218	\$ 1,288	\$ 1,312	\$ 990

Notes

- *Claims and eligibility data ends June, 2012*
- *Total costs based on allowed amount indicated for each claim*
- *Only “Engaged” members with more than two months engagement and MEDai forecast data during the month engagement began were included in analyses (N=16,451)*

Exhibit C-4 – Expenditure Distribution for Participants

Enrollment Group	Pre-Engagement: 1 to 12 months		Engaged Period	
	Clients	Percent of Clients	Clients	Percent of Clients
Tier 1				
Less than \$1,000	14	0.5%	186	6.1%
\$1,000-\$4,999	139	4.6%	634	20.9%
\$5,000-\$24,999	1,520	50.0%	1,179	38.8%
\$25,000-\$49,999	917	30.2%	561	18.5%
\$50,000 and over	449	14.8%	479	15.8%
Total	3,039	100.0%	3,039	100.0%
Tier 2				
Less than \$1,000	252	1.9%	2,079	15.5%
\$1,000-\$4,999	3,409	25.4%	4,601	34.3%
\$5,000-\$24,999	8,655	64.5%	4,794	35.7%
\$25,000-\$49,999	900	6.7%	1,247	9.3%
\$50,000 and over	196	1.5%	691	5.2%
Total	13,412	100.0%	13,412	100.0%
Tiers 1 & 2				
Less than \$1,000	266	1.6%	2,265	13.8%
\$1,000-\$4,999	3,548	21.6%	5,235	31.8%
\$5,000-\$24,999	10,175	61.9%	5,973	36.3%
\$25,000-\$49,999	1,817	11.0%	1,808	11.0%
\$50,000 and over	645	3.9%	1,170	7.1%
Total	16,451	100.0%	16,451	100.0%

Notes

- Claims and eligibility data ends June, 2012
- Total costs based on allowed amount indicated for each claim
- Only “Engaged” members with more than two months engagement and MEDai forecast data during the month engagement began were included in analyses (N=16,451)

Exhibit C-5 – Highest Cost Participants – Expenditures as Percent of Total

Enrollment Group	Pre-Engagement: 1 to 12 months		Engaged Period	
	Expenditures	Percent of Expenditures	Expenditures	Percent of Expenditures
Tier 1				
Top 5%	\$ 2,870,116	8.0%	\$ 8,161,503	21.2%
Top 10%	\$ 5,458,957	15.2%	\$ 11,824,676	30.8%
Top 20%	\$ 9,359,168	26.1%	\$ 18,237,249	47.4%
Total	\$ 35,864,340	100.0%	\$ 38,445,358	100.0%
Tier 2				
Top 5%	\$ 80,152,235	38.2%	\$ 97,684,634	45.2%
Top 10%	\$ 108,333,188	51.6%	\$ 129,067,979	59.8%
Top 20%	\$ 139,225,706	66.3%	\$ 163,369,643	75.7%
Total	\$ 209,899,037	100.0%	\$ 215,945,232	100.0%
Tiers 1 & 2				
Top 5%	\$ 62,173,767	25.3%	\$ 94,447,981	37.1%
Top 10%	\$ 92,816,709	37.8%	\$ 132,594,407	52.1%
Top 20%	\$ 134,388,578	54.7%	\$ 179,221,603	70.5%
Total	\$ 245,763,377	100.0%	\$ 254,390,590	100.0%

Notes

- Claims and eligibility data ends June, 2012
- Total costs based on allowed amount indicated for each claim
- Only “Engaged” members with more than two months engagement and MEDai forecast data during the month engagement began were included in analyses (N=16,451)
- Percentages calculated based on expenditures for each tier separately during specified time period

Exhibit C-6 – Participants and Expenditures by Age Cohort

Enrollment Group	Members	Percent of Members	Pre-Engagement: 1 to 12 months		Engaged Period	
			Expenditures	Percent of Expenditures	Expenditures	Percent of Expenditures
Tier 1						
Less than 21	287	9.4%	\$ 20,295,523	21.8%	\$ 18,890,068	22.8%
21-34	321	10.6%	\$ 6,106,751	6.6%	\$ 5,044,197	6.1%
35-49	994	32.7%	\$ 11,075,606	11.9%	\$ 10,123,099	12.2%
50 and over	1,437	47.3%	\$ 55,432,354	59.7%	\$ 48,924,446	59.0%
Total	3,039	100.0%	\$ 92,910,234	100.0%	\$ 82,981,810	100.0%
Tier 2						
Less than 21	2,025	15.1%	\$ 34,634,395	22.7%	\$ 39,236,119	22.9%
21-34	1,672	12.5%	\$ 12,316,248	8.1%	\$ 14,721,764	8.6%
35-49	4,139	30.9%	\$ 19,603,097	12.8%	\$ 21,508,431	12.5%
50 and over	5,576	41.6%	\$ 86,299,403	56.5%	\$ 95,942,467	56.0%
Total	13,412	100.0%	\$ 152,853,143	100.0%	\$ 171,408,781	100.0%
Tiers 1 & 2						
Less than 21	2,312	14.1%	\$ 54,929,919	22.4%	\$ 58,126,187	22.8%
21-34	1,993	12.1%	\$ 18,422,999	7.5%	\$ 19,765,961	7.8%
35-49	5,133	31.2%	\$ 30,678,703	12.5%	\$ 31,631,530	12.4%
50 and over	7,013	42.6%	\$ 141,731,756	57.7%	\$ 144,866,913	56.9%
Total	16,451	100.0%	\$ 245,763,377	100.0%	\$ 254,390,590	100.0%

Notes

- Claims and eligibility data ends June, 2012
- Total costs based on allowed amount indicated for each claim
- Only “Engaged” members with more than two months engagement and MEDai forecast data during the month engagement began were included in analyses (N=16,451)
- Percentages calculated based on expenditures for each tier separately during specified time period

Exhibit C-7 – Participants and Expenditures by Urban/Rural

Enrollment Group	Pre-Engagement: 1 to 12 months		Engaged Period	
	Expenditures	Percent of Expenditures	Expenditures	Percent of Expenditures
Tier 1				
Urban	\$ 50,879,143	54.8%	\$ 46,224,699	55.7%
Rural	\$ 42,031,091	45.2%	\$ 36,757,110	44.3%
Total	\$ 92,910,234	100.0%	\$ 82,981,810	100.0%
Tier 2				
Urban	\$ 80,893,291	52.9%	\$ 88,410,159	51.6%
Rural	\$ 71,959,852	47.1%	\$ 82,998,622	48.4%
Total	\$ 152,853,143	100.0%	\$ 171,408,781	100.0%
Tiers 1 & 2				
Urban	\$ 131,772,434	53.6%	\$ 134,634,858	52.9%
Rural	\$ 113,990,943	46.4%	\$ 119,755,732	47.1%
Total	\$ 245,763,377	100.0%	\$ 254,390,590	100.0%

Notes

- Claims and eligibility data ends June, 2012
- Total costs based on allowed amount indicated for each claim
- Only “Engaged” members with more than two months engagement and MEDai forecast data during the month engagement began were included in analyses (N=16,451)
- Percentages calculated based on expenditures for each tier separately during specified time period

Exhibit C-8 – Incidence of Target Conditions for Participants

Target Condition	Tier 1		Tier 2	
	Number of Members	Percent of Total	Number of Members	Percent of Total
Asthma	1,258	41.4%	5,436	40.5%
COPD	1,680	55.3%	6,376	47.5%
Congestive Heart Failure	1,112	36.6%	3,228	24.1%
Coronary Artery Disease	1,443	47.5%	4,757	35.5%
Diabetes	1,703	56.0%	7,005	52.2%
Hypertension	2,485	81.8%	10,615	79.1%
Total (Unduplicated)	3,039	100.0%	13,412	100.0%

Notes

- Only “Engaged” members with more than two months engagement and MEDai forecast data during the month engagement began were included in analyses (N=16,451)
- Members diagnosed with more than one target condition was included in both categories

Exhibit C-9 – Most Common Diagnoses for Participants

Diagnosis	Tier 1		Tier 2	
	Members	% of Total	Members	% of Total
Diabetes	532	17.5%	2,119	15.8%
Psychoses	581	19.1%	1,704	12.7%
Disease of Musculoskeletal System	194	6.4%	1,599	11.9%
Neurotic, Personality or Other Mental Disorder	250	8.2%	1,497	11.2%
Chronic Obstructive Pulmonary Disease	132	4.3%	615	4.6%
Hypertension	84	2.8%	520	3.9%
Nervous System Disease	57	1.9%	495	3.7%
Heart Disease	156	5.1%	360	2.7%
Neoplasm	173	5.7%	273	2.0%
Injury	44	1.4%	201	1.5%
Respiratory Disease	21	0.7%	183	1.4%
Other Metabolic or Immunity Disorder	24	0.8%	126	0.9%
Other Viral Disease	21	0.7%	125	0.9%
Disease of Urinary System	19	0.6%	111	0.8%
Disease of Skin	34	1.1%	86	0.6%
Cerebral Palsy	20	0.7%	77	0.6%
Disease of Genital Organs	5	0.2%	92	0.7%
Disorder of the Eye	6	0.2%	84	0.6%
Anemia	28	0.9%	61	0.5%
Disorder of Thyroid Gland	7	0.2%	81	0.6%
Renal Disease	30	1.0%	50	0.4%
Circulatory Disease	14	0.5%	53	0.4%
Liver Disease	21	0.7%	41	0.3%
Congenital Anomalies	7	0.2%	45	0.3%
Disease of the Esophagus	1	0.0%	46	0.3%
All Other Conditions	578	19.0%	2,768	20.6%
Total	3,039	100.0%	13,412	100.0%

Notes

- *Diagnosis codes truncated to the first three characters*
- *Data based on claims experience 2/08 through 6/12*
- *Only includes “Engaged” members with more than two months engagement and MEDai forecast data during the month in which engagement began (N=16,451)*
- *Only includes the top 25 most common diagnoses*

Exhibit C-10 – Most Expensive (Incidence) Diagnoses for Participants

Diagnosis	Tier 1		Tier 2	
	Members	% of Total	Members	% of Total
Neurotic, Personality or Other Mental Disorder	356	11.7%	1,788	13.3%
Psychoses	502	16.5%	1,469	11.0%
Disease of Musculoskeletal System	181	6.0%	1,372	10.2%
Diabetes	252	8.3%	1,229	9.2%
Chronic Obstructive Pulmonary Disease	116	3.8%	594	4.4%
Nervous System Disease	93	3.1%	595	4.4%
Heart Disease	162	5.3%	406	3.0%
Hypertension	94	3.1%	467	3.5%
Neoplasm	127	4.2%	268	2.0%
Injury	53	1.7%	281	2.1%
Other Metabolic or Immunity Disorder	92	3.0%	228	1.7%
Disease of Genital Organs	10	0.3%	202	1.5%
Disorder of the Eye	16	0.5%	187	1.4%
Respiratory Disease	29	1.0%	172	1.3%
Anemia	57	1.9%	106	0.8%
Disease of the Esophagus	32	1.1%	121	0.9%
Obesity	24	0.8%	122	0.9%
Disease of Skin	27	0.9%	98	0.7%
Circulatory Disease	27	0.9%	97	0.7%
Disease of Urinary System	20	0.7%	100	0.7%
Cerebral Palsy	21	0.7%	85	0.6%
Other Viral Disease	15	0.5%	79	0.6%
Renal Disease	28	0.9%	57	0.4%
Intestinal Disorder	16	0.5%	65	0.5%
Disorder of Thyroid Gland	18	0.6%	57	0.4%
All Other Conditions	671	22.1%	3,167	23.6%
Total	3,039	100.0%	13,412	100.0%

Notes

- *Diagnosis codes truncated to the first three characters*
- *Data based on claims experience 2/08 through 6/12*
- *Only includes “Engaged” members with more than two months engagement and MEDai forecast data during the month in which engagement began (N=16,451)*
- *Only includes the top 25 most expensive (incidence) diagnoses*

Exhibit C-11 – Physical Health Co-morbidity Summary for Participants

Number of Target Chronic Impact Conditions	Tier 1		Tier 2	
	Number of Members	Percent of Total	Number of Members	Percent of Total
0	158	5.2%	1,504	11.2%
1	387	12.7%	2,930	21.8%
2	558	18.4%	3,551	26.5%
3	590	19.4%	2,700	20.1%
4	595	19.6%	1,624	12.1%
5	478	15.7%	822	6.1%
6	273	9.0%	281	2.1%
Total Members	3,039	100.0%	13,412	100.0%

Notes

- Conditions included are the priority conditions targeted by Telligen
- Only includes “Engaged” members with more than two months engagement and MEDai forecast data during the month in which engagement began (N=16,451)

Exhibit C-12 – Behavioral Health Co-morbidity Summary for Participants

Physical Condition Co-Occurring with Behavioral Health Diagnosis	Tier 1		Tier 2	
	Number of Members	Percent of Total	Number of Members	Percent of Total
Asthma	670	44.4%	2,297	41.0%
COPD	842	55.8%	2,353	42.0%
Congestive Heart Failure	458	30.4%	910	16.3%
Coronary Artery Disease	651	43.2%	1,446	25.8%
Diabetes	806	53.4%	2,512	44.9%
Hypertension	1,256	83.3%	4,000	71.5%
Total (Unduplicated)	1,508	100.0%	5,598	100.0%

Notes

- Conditions included are the priority conditions targeted by Telligen
- Only includes “Engaged” members with more than two months engagement and MEDai forecast data during the month in which engagement began (N=16,451)
- To be included, a behavioral health diagnosis had to be one of the client’s top three most common diagnoses during the evaluation period

Exhibit C-13 – Frequency of Most Common Co-morbidities for Participants

- Participants with chronic impact condition, the specified comorbidity, and additional comorbidities
- Participants ONLY with chronic impact condition and the specified comorbidity (no other comorbidities)

Comorbidity	Tier 1		Comorbidity	Tier 2	
	Participants	%		Participants	%
Asthma	1,258	100.0%	Asthma	4,519	100.0%
	10	0.8%		85	1.9%
+ Hypertension	1,060	84.3%	+ Hypertension	3,001	66.4%
	1	0.1%		17	0.4%
+ Depression	965	76.7%	+ Depression	2,812	62.2%
	1	0.1%		13	0.3%
+ COPD	863	68.6%	+ Behavioral Health Disorder	2,297	50.8%
	0	0.0%		17	0.4%
+ Diabetes	777	61.8%	+ Lower Back Pain	2,266	50.1%
	1	0.1%		12	0.3%
+ Lower Back Pain	770	61.2%	+ COPD	2,172	48.1%
	1	0.1%		10	0.2%
COPD	1,680	100.0%	COPD	5,070	100.0%
	11	0.7%		64	1.3%
+ Hypertension	1,513	90.1%	+ Hypertension	3,957	78.0%
	3	0.2%		18	0.4%
+ Depression	1,242	73.9%	+ Depression	3,046	60.1%
	1	0.1%		4	0.1%
+ Diabetes	1,047	62.3%	+ Lower Back Pain	2,795	55.1%
	1	0.1%		13	0.3%
+ Hyperlipidemia	1,027	61.1%	+ Hyperlipidemia	2,642	52.1%
	0	0.0%		4	0.1%
+ Lower Back Pain	1,002	59.6%	+ Diabetes	2,499	49.3%
	1	0.1%		2	0.0%
Congestive Heart Failure	1,112	100.0%	Congestive Heart Failure	2,315	100.0%
	2	0.2%		19	0.8%
+ Hypertension	1,056	95.0%	+ Hypertension	2,033	87.8%
	1	0.1%		5	0.2%
+ COPD	837	75.3%	+ Hyperlipidemia	1,417	61.2%
	0	0.0%		0	0.0%
+ Coronary Artery Disease	803	72.2%	+ Diabetes	1,409	60.9%
	0	0.0%		2	0.1%
+ Depression	780	70.1%	+ Depression	1,367	59.0%
	0	0.0%		1	0.0%
+ Hyperlipidemia	780	70.1%	+ COPD	1,355	58.5%
	0	0.0%		2	0.1%

Comorbidity	Tier 1		Comorbidity	Tier 2	
	Participants	%		Participants	%
Coronary Artery Disease	1,443	100.0%	Coronary Artery Disease	3,594	100.0%
	3	0.2%		40	1.1%
+ Hypertension	1,358	94.1%	+ Hypertension	3,123	86.9%
	2	0.1%		11	0.3%
+ Hyperlipidemia	1,041	72.1%	+ Hyperlipidemia	2,305	64.1%
	0	0.0%		5	0.1%
+ COPD	1,000	69.3%	+ Depression	2,032	56.5%
	1	0.1%		5	0.1%
+ Depression	998	69.2%	+ Diabetes	2,021	56.2%
	0	0.0%		3	0.1%
+ Diabetes	959	66.5%	+ COPD	1,940	54.0%
	0	0.0%		2	0.1%
Diabetes	1,703	100.0%	Diabetes	5,906	100.0%
	14	0.8%		102	1.7%
+ Hypertension	1,535	90.1%	+ Hypertension	4,771	80.8%
	3	0.2%		49	0.8%
+ Depression	1,195	70.2%	+ Depression	3,365	57.0%
	2	0.1%		10	0.2%
+ Hyperlipidemia	1,117	65.6%	+ Hyperlipidemia	3,362	56.9%
	0	0.0%		10	0.2%
+ COPD	1,047	61.5%	+ Lower Back Pain	2,844	48.2%
	1	0.1%		8	0.1%
+ Coronary Artery Disease	959	56.3%	+ Behavioral Health Disorder	2,512	42.5%
	0	0.0%		9	0.2%
Hypertension	2,485	100.0%	Hypertension	9,020	100.0%
	22	0.9%		229	2.5%
+ Depression	1,729	69.6%	+ Depression	5,122	56.8%
	2	0.1%		23	0.3%
+ Diabetes	1,535	61.8%	+ Hyperlipidemia	4,856	53.8%
	3	0.1%		21	0.2%
+ COPD	1,513	60.9%	+ Diabetes	4,771	52.9%
	3	0.1%		49	0.5%
+ Hyperlipidemia	1,511	60.8%	+ Lower Back Pain	4,569	50.7%
	1	0.0%		41	0.5%
+ Lower Back Pain	1,389	55.9%	+ Behavioral Health Disorder	4,000	44.3%
	1	0.0%		29	0.3%
Cerebrovascular Accident	348	100.0%	Cerebrovascular Accident	654	100.0%
	4	1.1%		12	1.8%
+ Hypertension	326	93.7%	+ Hypertension	555	84.9%
	1	0.3%		4	0.6%
+ Depression	248	71.3%	+ Hyperlipidemia	392	59.9%
	1	0.3%		0	0.0%
+ Hyperlipidemia	235	67.5%	+ Depression	362	55.4%
	0	0.0%		2	0.3%
+ Coronary Artery Disease	221	63.5%	+ Diabetes	336	51.4%
	0	0.0%		1	0.2%
+ COPD	220	63.2%	+ COPD	324	49.5%
	1	0.3%		0	0.0%

Comorbidity	Tier 1		Comorbidity	Tier 2	
	Participants	%		Participants	%
Depression	2,098	100.0%	Depression	7,616	100.0%
	24	1.1%		187	2.5%
+ Hypertension	1,729	82.4%	+ Hypertension	5,122	67.3%
	2	0.1%		23	0.3%
+ Lower Back Pain	1,261	60.1%	+ Behavioral Health Disorder	4,592	60.3%
	4	0.2%		81	1.1%
+ Behavioral Health Disorder	1,253	59.7%	+ Lower Back Pain	4,090	53.7%
	8	0.4%		34	0.4%
+ COPD	1,242	59.2%	+ Diabetes	3,365	44.2%
	1	0.0%		10	0.1%
+ Diabetes	1,195	57.0%	+ Hyperlipidemia	3,210	42.1%
	2	0.1%		4	0.1%
HIV	19	100.0%	HIV	71	100.0%
	1	5.3%		1	1.4%
+ Hypertension	17	89.5%	+ Hypertension	51	71.8%
	0	0.0%		0	0.0%
+ Depression	14	73.7%	+ Depression	50	70.4%
	0	0.0%		0	0.0%
+ Diabetes	13	68.4%	+ Lower Back Pain	41	57.7%
	0	0.0%		1	1.4%
+ Lower Back Pain	12	63.2%	+ COPD	40	56.3%
	0	0.0%		0	0.0%
+ Congestive Heart Failure	11	57.9%	+ Diabetes	36	50.7%
	0	0.0%		0	0.0%
Hyperlipidemia	1,600	100.0%	Hyperlipidemia	5,659	100.0%
	2	0.1%		58	1.0%
+ Hypertension	1,511	94.4%	+ Hypertension	4,856	85.8%
	1	0.1%		21	0.4%
+ Diabetes	1,117	69.8%	+ Diabetes	3,362	59.4%
	0	0.0%		10	0.2%
+ Depression	1,113	69.6%	+ Depression	3,210	56.7%
	0	0.0%		4	0.1%
+ Coronary Artery Disease	1,041	65.1%	+ Lower Back Pain	2,954	52.2%
	0	0.0%		7	0.1%
+ COPD	1,027	64.2%	+ COPD	2,642	46.7%
	0	0.0%		4	0.1%
Lower Back Pain	1,599	100.0%	Lower Back Pain	6,312	100.0%
	10	0.6%		149	2.4%
+ Hypertension	1,389	86.9%	+ Hypertension	4,569	72.4%
	1	0.1%		41	0.6%
+ Depression	1,261	78.9%	+ Depression	4,090	64.8%
	4	0.3%		34	0.5%
+ COPD	1,002	62.7%	+ Behavioral Health Disorder	3,155	50.0%
	1	0.1%		20	0.3%
+ Diabetes	957	59.8%	+ Hyperlipidemia	2,954	46.8%
	3	0.2%		7	0.1%
+ Hyperlipidemia	911	57.0%	+ Diabetes	2,844	45.1%
	0	0.0%		8	0.1%

Comorbidity	Tier 1		Comorbidity	Tier 2	
	Participants	%		Participants	%
Migraine Headaches	589	100.0%	Migraine Headaches	2,187	100.0%
	4	0.7%		32	1.5%
+ Hypertension	501	85.1%	+ Depression	1,566	71.6%
	0	0.0%		5	0.2%
+ Depression	484	82.2%	+ Hypertension	1,367	62.5%
	3	0.5%		3	0.1%
+ Lower Back Pain	399	67.7%	+ Lower Back Pain	1,280	58.5%
	0	0.0%		4	0.2%
+ Behavioral Health Disorder	365	62.0%	+ Behavioral Health Disorder	1,191	54.5%
	0	0.0%		7	0.3%
+ Diabetes	356	60.4%	+ Asthma	911	41.7%
	0	0.0%		6	0.3%
Multiple Sclerosis	85	100.0%	Multiple Sclerosis	225	100.0%
	0	0.0%		1	0.4%
+ Hypertension	73	85.9%	+ Hypertension	167	74.2%
	0	0.0%		1	0.4%
+ Depression	62	72.9%	+ Depression	159	70.7%
	0	0.0%		0	0.0%
+ Diabetes	57	67.1%	+ Diabetes	112	49.8%
	0	0.0%		0	0.0%
+ COPD	54	63.5%	+ COPD	97	43.1%
	0	0.0%		0	0.0%
+ Lower Back Pain	54	63.5%	+ Lower Back Pain	120	53.3%
	0	0.0%		0	0.0%
Renal Failure	624	100.0%	Renal Failure	853	100.0%
	3	0.5%		6	0.7%
+ Hypertension	586	93.9%	+ Hypertension	778	91.2%
	1	0.2%		2	0.2%
+ Diabetes	436	69.9%	+ Diabetes	546	64.0%
	0	0.0%		1	0.1%
+ Depression	420	67.3%	+ COPD	450	52.8%
	1	0.2%		0	0.0%
+ COPD	419	67.1%	+ Depression	493	57.8%
	0	0.0%		0	0.0%
+ Coronary Artery Disease	402	64.4%	+ Hyperlipidemia	502	58.9%
	0	0.0%		0	0.0%
Rheumatoid Arthritis	250	100.0%	Rheumatoid Arthritis	920	100.0%
	1	0.4%		15	1.6%
+ Hypertension	225	90.0%	+ Hypertension	692	75.2%
	0	0.0%		2	0.2%
+ Depression	203	81.2%	+ Depression	595	64.7%
	0	0.0%		3	0.3%
+ Lower Back Pain	170	68.0%	+ Lower Back Pain	558	60.7%
	0	0.0%		4	0.4%
+ Diabetes	168	67.2%	+ Diabetes	460	50.0%
	0	0.0%		2	0.2%
+ COPD	168	67.2%	+ COPD	451	49.0%
	0	0.0%		2	0.2%

Comorbidity	Tier 1		Comorbidity	Tier 2	
	Participants	%		Participants	%
Schizophrenia	996	100.0%	Schizophrenia	2,664	100.0%
	7	0.7%		28	1.1%
+ Hypertension	840	84.3%	+ Depression	1,969	73.9%
	2	0.2%		2	0.1%
+ Depression	819	82.2%	+ Hypertension	1,929	72.4%
	1	0.1%		3	0.1%
+ Behavioral Health Disorder	710	71.3%	+ COPD	1,323	49.7%
	4	0.4%		0	0.0%
+ COPD	619	62.1%	+ Diabetes	1,334	50.1%
	0	0.0%		2	0.1%
+ Diabetes	600	60.2%	+ Lower Back Pain	1,484	55.7%
	0	0.0%		1	0.0%

Notes

- Based on primary diagnosis indicated on claims from 02/06 through 06/12
- Total occurrences based on total occurrences of each conditions
- Percentages are based on participants in specified diagnostic category
- Conditions listed are Chronic Impact Score conditions used by MEDai
- Only top five most frequent co-morbidities are listed for each diagnostic category
- Only “Engaged” members with more than two months engagement and MEDai forecast data during the month of engagement were included for analyses (N=16,451)

Exhibit C-14 – Participants with Asthma as Most Expensive Diagnosis, With and Without Behavioral Health Co-morbidity: Forecast versus Actual Expenditures

Enrollment Group	With Behavioral Health Disorder								
	Engaged/Post-Engagement: 1 to 12 months			Engaged/Post-Engagement: 13 to 24 months			Engaged/Post-Engagement: 25 to 36 months		
	MEDai Forecast	Actual	Actual as % of Forecast	MEDai Forecast	Actual	Actual as % of Forecast	MEDai Forecast	Actual	Actual as % of Forecast
Tier 1	\$ 2,098	\$ 1,712	82%	\$ 1,472	\$ 1,203	82%	\$ 2,192	\$ 1,708	78%
Tier 2	\$ 903	\$ 834	92%	\$ 734	\$ 523	71%	\$ 978	\$ 629	64%
Tiers 1 & 2	\$ 1,048	\$ 937	89%	\$ 824	\$ 603	73%	\$ 1,127	\$ 756	67%

Enrollment Group	Without Behavioral Health Disorder								
	Engaged/Post-Engagement: 1 to 12 months			Engaged/Post-Engagement: 13 to 24 months			Engaged/Post-Engagement: 25 to 36 months		
	MEDai Forecast	Actual	Actual as % of Forecast	MEDai Forecast	Actual	Actual as % of Forecast	MEDai Forecast	Actual	Actual as % of Forecast
Tier 1	\$ 3,236	\$ 3,450	107%	\$ 2,680	\$ 2,155	80%	\$ 3,274	\$ 2,719	83%
Tier 2	\$ 989	\$ 890	90%	\$ 804	\$ 496	62%	\$ 1,056	\$ 630	60%
Tiers 1 & 2	\$ 1,265	\$ 1,194	94%	\$ 1,035	\$ 693	67%	\$ 1,344	\$ 901	67%

Exhibit C-15 – Participants with COPD as Most Expensive Diagnosis, With and Without Behavioral Health Co-morbidity: Forecast versus Actual Expenditures

Enrollment Group	With Behavioral Health Disorder								
	Engaged/Post-Engagement: 1 to 12 months			Engaged/Post-Engagement: 13 to 24 months			Engaged/Post-Engagement: 25 to 36 months		
	MEDai Forecast	Actual	Actual as % of Forecast	MEDai Forecast	Actual	Actual as % of Forecast	MEDai Forecast	Actual	Actual as % of Forecast
Tier 1	\$ 2,351	\$ 1,956	83%	\$ 1,794	\$ 1,658	92%	\$ 2,220	\$ 1,840	83%
Tier 2	\$ 1,234	\$ 1,278	104%	\$ 1,036	\$ 827	80%	\$ 1,394	\$ 1,156	83%
Tiers 1 & 2	\$ 1,462	\$ 1,413	97%	\$ 1,191	\$ 992	83%	\$ 1,530	\$ 1,268	83%

Enrollment Group	Without Behavioral Health Disorder								
	Engaged/Post-Engagement: 1 to 12 months			Engaged/Post-Engagement: 13 to 24 months			Engaged/Post-Engagement: 25 to 36 months		
	MEDai Forecast	Actual	Actual as % of Forecast	MEDai Forecast	Actual	Actual as % of Forecast	MEDai Forecast	Actual	Actual as % of Forecast
Tier 1	\$ 2,843	\$ 2,814	99%	\$ 2,218	\$ 2,077	94%	\$ 2,617	\$ 1,825	70%
Tier 2	\$ 1,232	\$ 1,156	94%	\$ 998	\$ 839	84%	\$ 1,381	\$ 1,232	89%
Tiers 1 & 2	\$ 1,558	\$ 1,488	96%	\$ 1,245	\$ 1,087	87%	\$ 1,638	\$ 1,359	83%

Exhibit C-16 – Participants with Heart Failure as Most Expensive Diagnosis, With and Without Behavioral Health Co-morbidity: Forecast versus Actual Expenditures

Enrollment Group	With Behavioral Health Disorder								
	Engaged/Post-Engagement: 1 to 12 months			Engaged/Post-Engagement: 13 to 24 months			Engaged/Post-Engagement: 25 to 36 months		
	MEDai Forecast	Actual	Actual as % of Forecast	MEDai Forecast	Actual	Actual as % of Forecast	MEDai Forecast	Actual	Actual as % of Forecast
Tier 1	\$ 2,493	\$ 2,545	102%	\$ 1,762	\$ 1,660	94%	\$ 2,292	\$ 1,930	84%
Tier 2	\$ 1,261	\$ 1,383	110%	\$ 1,060	\$ 1,022	96%	\$ 1,387	\$ 1,286	93%
Tiers 1 & 2	\$ 1,749	\$ 1,837	105%	\$ 1,338	\$ 1,272	95%	\$ 1,662	\$ 1,479	89%

Enrollment Group	Without Behavioral Health Disorder								
	Engaged/Post-Engagement: 1 to 12 months			Engaged/Post-Engagement: 13 to 24 months			Engaged/Post-Engagement: 25 to 36 months		
	MEDai Forecast	Actual	Actual as % of Forecast	MEDai Forecast	Actual	Actual as % of Forecast	MEDai Forecast	Actual	Actual as % of Forecast
Tier 1	\$ 3,057	\$ 2,910	95%	\$ 2,575	\$ 1,822	71%	\$ 3,403	\$ 2,849	84%
Tier 2	\$ 1,563	\$ 1,499	96%	\$ 1,326	\$ 1,102	83%	\$ 1,719	\$ 1,433	83%
Tiers 1 & 2	\$ 1,978	\$ 1,897	96%	\$ 1,673	\$ 1,305	78%	\$ 2,143	\$ 1,799	84%

Exhibit C-17 – Participants with CAD as Most Expensive Diagnosis, With and Without Behavioral Health Co-morbidity: Forecast versus Actual Expenditures

Enrollment Group	With Behavioral Health Disorder								
	Engaged/Post-Engagement: 1 to 12 months			Engaged/Post-Engagement: 13 to 24 months			Engaged/Post-Engagement: 25 to 36 months		
	MEDai Forecast	Actual	Actual as % of Forecast	MEDai Forecast	Actual	Actual as % of Forecast	MEDai Forecast	Actual	Actual as % of Forecast
Tier 1	\$ 2,362	\$ 2,314	98%	\$ 1,862	\$ 1,765	95%	\$ 2,484	\$ 1,683	68%
Tier 2	\$ 1,242	\$ 1,084	87%	\$ 999	\$ 683	68%	\$ 1,320	\$ 891	67%
Tiers 1 & 2	\$ 1,569	\$ 1,437	92%	\$ 1,251	\$ 994	79%	\$ 1,662	\$ 1,121	67%

Enrollment Group	Without Behavioral Health Disorder								
	Engaged/Post-Engagement: 1 to 12 months			Engaged/Post-Engagement: 13 to 24 months			Engaged/Post-Engagement: 25 to 36 months		
	MEDai Forecast	Actual	Actual as % of Forecast	MEDai Forecast	Actual	Actual as % of Forecast	MEDai Forecast	Actual	Actual as % of Forecast
Tier 1	\$ 2,500	\$ 2,388	96%	\$ 1,988	\$ 1,521	77%	\$ 2,364	\$ 1,660	70%
Tier 2	\$ 1,284	\$ 1,273	99%	\$ 1,030	\$ 721	70%	\$ 1,336	\$ 865	65%
Tiers 1 & 2	\$ 1,594	\$ 1,559	98%	\$ 1,275	\$ 927	73%	\$ 1,589	\$ 1,072	67%

Exhibit C-18 – Participants with Diabetes as Most Expensive Diagnosis, With and Without Behavioral Health Co-morbidity: Forecast versus Actual Expenditures

Enrollment Group	With Behavioral Health Disorder								
	Engaged/Post-Engagement: 1 to 12 months			Engaged/Post-Engagement: 13 to 24 months			Engaged/Post-Engagement: 25 to 36 months		
	MEDai Forecast	Actual	Actual as % of Forecast	MEDai Forecast	Actual	Actual as % of Forecast	MEDai Forecast	Actual	Actual as % of Forecast
Tier 1	\$ 2,092	\$ 2,072	99%	\$ 1,669	\$ 1,333	80%	\$ 2,201	\$ 1,601	73%
Tier 2	\$ 1,150	\$ 1,043	91%	\$ 907	\$ 694	76%	\$ 1,228	\$ 954	78%
Tiers 1 & 2	\$ 1,319	\$ 1,227	93%	\$ 1,044	\$ 808	77%	\$ 1,392	\$ 1,070	77%

Enrollment Group	Without Behavioral Health Disorder								
	Engaged/Post-Engagement: 1 to 12 months			Engaged/Post-Engagement: 13 to 24 months			Engaged/Post-Engagement: 25 to 36 months		
	MEDai Forecast	Actual	Actual as % of Forecast	MEDai Forecast	Actual	Actual as % of Forecast	MEDai Forecast	Actual	Actual as % of Forecast
Tier 1	\$ 2,470	\$ 2,258	91%	\$ 1,909	\$ 1,675	88%	\$ 2,486	\$ 1,848	74%
Tier 2	\$ 1,116	\$ 978	88%	\$ 900	\$ 670	74%	\$ 1,177	\$ 834	71%
Tiers 1 & 2	\$ 1,348	\$ 1,195	89%	\$ 1,073	\$ 841	78%	\$ 1,412	\$ 1,023	72%

Exhibit C-19 – Participants with Hypertension as Most Expensive Diagnosis, With and Without Behavioral Health Co-morbidity: Forecast versus Actual Expenditures

Enrollment Group	With Behavioral Health Disorder								
	Engaged/Post-Engagement: 1 to 12 months			Engaged/Post-Engagement: 13 to 24 months			Engaged/Post-Engagement: 25 to 36 months		
	MEDai Forecast	Actual	Actual as % of Forecast	MEDai Forecast	Actual	Actual as % of Forecast	MEDai Forecast	Actual	Actual as % of Forecast
Tier 1	\$ 1,992	\$ 1,552	78%	\$ 1,440	\$ 911	63%	\$ 2,007	\$ 1,298	65%
Tier 2	\$ 1,142	\$ 969	85%	\$ 914	\$ 642	70%	\$ 1,197	\$ 787	66%
Tiers 1 & 2	\$ 1,299	\$ 1,075	83%	\$ 1,011	\$ 691	68%	\$ 1,331	\$ 875	66%

Enrollment Group	Without Behavioral Health Disorder								
	Engaged/Post-Engagement: 1 to 12 months			Engaged/Post-Engagement: 13 to 24 months			Engaged/Post-Engagement: 25 to 36 months		
	MEDai Forecast	Actual	Actual as % of Forecast	MEDai Forecast	Actual	Actual as % of Forecast	MEDai Forecast	Actual	Actual as % of Forecast
Tier 1	\$ 2,643	\$ 2,226	84%	\$ 2,026	\$ 1,303	64%	\$ 2,704	\$ 1,405	52%
Tier 2	\$ 1,100	\$ 822	75%	\$ 858	\$ 550	64%	\$ 1,141	\$ 710	62%
Tiers 1 & 2	\$ 1,351	\$ 1,047	77%	\$ 1,048	\$ 671	64%	\$ 1,422	\$ 831	58%

**Exhibit C-20 – Utilization and Expenditure Profile for Participants with Asthma
Most Expensive Diagnosis at the Time of Engagement**

Forecast versus Actual: 12 Month Period

Enrollment Group	MEDai Forecast	Actual	Actual as Percent of Forecast
Tier 1			
Client Count	185	185	
Inpatient Admission Days (per 1,000 members)	10,519	2,751	26.1%
Emergency Department Visits (per 1,000 members)	4,395	4,542	103.4%
Total PMPM Expenditures	\$2,744	\$2,696	98.3%
Tier 2			
Client Count	1,327	1,327	
Inpatient Admission Days (per 1,000 members)	2,054	749	36.5%
Emergency Department Visits (per 1,000 members)	2,416	2,009	83.1%
Total PMPM Expenditures	\$951	\$865	91.0%
Tiers 1 & 2			
Client Count	1,512	1,512	
Inpatient Admission Days (per 1,000 members)	3,089	825	26.7%
Emergency Department Visits (per 1,000 members)	2,658	2,565	96.5%
Total PMPM Expenditures	\$1,171	\$1,081	92.4%

Paid Claims Analysis: Pre & Post Engagement

Enrollment Group	Pre-Engagement: 1 to 12 months	Engaged Period	Percent Change
Tier 1			
Client Count	185	185	
Inpatient Admission Days (per 1,000 members)	4,580	2,050	-55.2%
Emergency Department Visits (per 1,000 members)	5,063	5,297	4.6%
Total PMPM Expenditures	\$3,201	\$2,626	-18.0%
Tier 2			
Client Count	1,327	1,327	
Inpatient Admission Days (per 1,000 members)	1,091	680	-37.7%
Emergency Department Visits (per 1,000 members)	2,383	2,053	-13.9%
Total PMPM Expenditures	\$942	\$1,023	8.6%
Tiers 1 & 2			
Client Count	1,512	1,512	
Inpatient Admission Days (per 1,000 members)	1,554	825	-46.9%
Emergency Department Visits (per 1,000 members)	3,353	2,380	-29.0%
Total PMPM Expenditures	\$1,217	\$1,230	1.1%

**Exhibit C-21 – Utilization and Expenditure Profile for Participants with COPD
Most Expensive Diagnosis at the Time of Engagement**

Forecast versus Actual: 12 Month Period

Enrollment Group	MEDai Forecast	Actual	Actual as Percent of Forecast
Tier 1			
Client Count	319	319	
Inpatient Admission Days (per 1,000 members)	15,408	5,417	35.2%
Emergency Department Visits (per 1,000 members)	3,486	2,733	78.4%
Total PMPM Expenditures	\$2,651	\$2,485	93.7%
Tier 2			
Client Count	5,070	5,070	
Inpatient Admission Days (per 1,000 members)	3,875	1,943	50.1%
Emergency Department Visits (per 1,000 members)	1,798	1,575	87.6%
Total PMPM Expenditures	\$1,232	\$1,203	97.6%
Tiers 1 & 2			
Client Count	5,389	5,389	
Inpatient Admission Days (per 1,000 members)	6,218	2,810	45.2%
Emergency Department Visits (per 1,000 members)	2,141	2,424	113.2%
Total PMPM Expenditures	\$1,521	\$1,459	95.9%

Paid Claims Analysis: Pre & Post Engagement

Enrollment Group	Pre-Engagement: 1 to 12 months	Engaged Period	Percent Change
Tier 1			
Client Count	319	319	
Inpatient Admission Days (per 1,000 members)	7,173	4,600	-35.9%
Emergency Department Visits (per 1,000 members)	3,160	2,771	-12.3%
Total PMPM Expenditures	\$2,976	\$2,667	-10.4%
Tier 2			
Client Count	5,070	5,070	
Inpatient Admission Days (per 1,000 members)	1,584	1,661	4.9%
Emergency Department Visits (per 1,000 members)	1,714	1,444	-15.8%
Total PMPM Expenditures	\$1,025	\$1,275	24.4%
Tiers 1 & 2			
Client Count	5,389	5,389	
Inpatient Admission Days (per 1,000 members)	3,377	3,353	-0.7%
Emergency Department Visits (per 1,000 members)	2,915	2,555	-12.4%
Total PMPM Expenditures	\$1,426	\$1,541	8.1%

**Exhibit C-22 – Utilization and Expenditure Profile for Participants with Heart Failure
Most Expensive Diagnosis at the Time of Engagement**

Forecast versus Actual: 12 Month Period

Enrollment Group	MEDai Forecast	Actual	Actual as Percent of Forecast
Tier 1			
Client Count	112	112	
Inpatient Admission Days (per 1,000 members)	18,518	6,590	35.6%
Emergency Department Visits (per 1,000 members)	3,393	2,824	83.2%
Total PMPM Expenditures	\$2,846	\$2,777	97.6%
Tier 2			
Client Count	246	246	
Inpatient Admission Days (per 1,000 members)	6,179	3,688	59.7%
Emergency Department Visits (per 1,000 members)	1,305	1,320	101.2%
Total PMPM Expenditures	\$1,484	\$1,469	99.0%
Tiers 1 & 2			
Client Count	358	358	
Inpatient Admission Days (per 1,000 members)	10,039	5,024	50.0%
Emergency Department Visits (per 1,000 members)	1,958	2,702	138.0%
Total PMPM Expenditures	\$1,910	\$1,880	98.4%

Paid Claims Analysis: Pre & Post Engagement

Enrollment Group	Pre-Engagement: 1 to 12 months	Engaged Period	Percent Change
Tier 1			
Client Count	112	112	
Inpatient Admission Days (per 1,000 members)	9,147	4,223	-53.8%
Emergency Department Visits (per 1,000 members)	3,188	2,732	-14.3%
Total PMPM Expenditures	\$3,308	\$2,708	-18.2%
Tier 2			
Client Count	246	246	
Inpatient Admission Days (per 1,000 members)	2,164	2,983	37.8%
Emergency Department Visits (per 1,000 members)	1,268	1,140	-10.1%
Total PMPM Expenditures	\$1,228	\$1,707	39.0%
Tiers 1 & 2			
Client Count	358	358	
Inpatient Admission Days (per 1,000 members)	5,432	5,522	1.6%
Emergency Department Visits (per 1,000 members)	3,059	2,660	-13.0%
Total PMPM Expenditures	\$1,893	\$2,000	5.7%

**Exhibit C-23 – Utilization and Expenditure Profile for Participants with CAD
Most Expensive Diagnosis at the Time of Engagement**

Forecast versus Actual: 12 Month Period

Enrollment Group	MEDai Forecast	Actual	Actual as Percent of Forecast
Tier 1			
Client Count	282	282	
Inpatient Admission Days (per 1,000 members)	13,816	4,610	33.4%
Emergency Department Visits (per 1,000 members)	3,234	4,052	125.3%
Total PMPM Expenditures	\$2,449	\$2,362	96.4%
Tier 2			
Client Count	772	772	
Inpatient Admission Days (per 1,000 members)	3,714	1,661	44.7%
Emergency Department Visits (per 1,000 members)	1,655	1,416	85.5%
Total PMPM Expenditures	\$1,270	\$1,212	95.4%
Tiers 1 & 2			
Client Count	1,054	1,054	
Inpatient Admission Days (per 1,000 members)	6,417	2,741	42.7%
Emergency Department Visits (per 1,000 members)	2,078	3,062	147.4%
Total PMPM Expenditures	\$1,586	\$1,519	95.8%

Paid Claims Analysis: Pre & Post Engagement

Enrollment Group	Pre-Engagement: 1 to 12 months	Engaged Period	Percent Change
Tier 1			
Client Count	282	282	
Inpatient Admission Days (per 1,000 members)	5,693	3,450	-39.4%
Emergency Department Visits (per 1,000 members)	3,857	3,923	1.7%
Total PMPM Expenditures	\$2,867	\$2,548	-11.1%
Tier 2			
Client Count	772	772	
Inpatient Admission Days (per 1,000 members)	1,420	1,498	5.5%
Emergency Department Visits (per 1,000 members)	1,509	1,246	-17.4%
Total PMPM Expenditures	\$1,154	\$1,251	8.4%
Tiers 1 & 2			
Client Count	1,054	1,054	
Inpatient Admission Days (per 1,000 members)	3,308	3,460	4.6%
Emergency Department Visits (per 1,000 members)	3,357	3,377	0.6%
Total PMPM Expenditures	\$1,619	\$1,609	-0.6%

**Exhibit C-24 – Utilization and Expenditure Profile for Participants with Diabetes
Most Expensive Diagnosis at the Time of Engagement**

Forecast versus Actual: 12 Month Period

Enrollment Group	MEDai Forecast	Actual	Actual as Percent of Forecast
Tier 1			
Client Count	602	602	
Inpatient Admission Days (per 1,000 members)	13,440	4,207	31.3%
Emergency Department Visits (per 1,000 members)	3,668	3,485	95.0%
Total PMPM Expenditures	\$2,343	\$2,195	93.7%
Tier 2			
Client Count	2,857	2,857	
Inpatient Admission Days (per 1,000 members)	3,321	1,035	31.2%
Emergency Department Visits (per 1,000 members)	1,753	1,462	83.4%
Total PMPM Expenditures	\$1,127	\$999	88.7%
Tiers 1 & 2			
Client Count	3,459	3,459	
Inpatient Admission Days (per 1,000 members)	5,082	1,674	32.9%
Emergency Department Visits (per 1,000 members)	2,086	2,398	114.9%
Total PMPM Expenditures	\$1,338	\$1,206	90.1%

Paid Claims Analysis: Pre & Post Engagement

Enrollment Group	Pre-Engagement: 1 to 12 months	Engaged Period	Percent Change
Tier 1			
Client Count	602	602	
Inpatient Admission Days (per 1,000 members)	5,677	3,009	-47.0%
Emergency Department Visits (per 1,000 members)	3,438	3,377	-1.8%
Total PMPM Expenditures	\$2,389	\$2,186	-8.5%
Tier 2			
Client Count	2,857	2,857	
Inpatient Admission Days (per 1,000 members)	996	909	-8.7%
Emergency Department Visits (per 1,000 members)	1,637	1,272	-22.3%
Total PMPM Expenditures	\$889	\$1,045	17.5%
Tiers 1 & 2			
Client Count	3,459	3,459	
Inpatient Admission Days (per 1,000 members)	2,177	2,015	-7.4%
Emergency Department Visits (per 1,000 members)	2,824	2,590	-8.3%
Total PMPM Expenditures	\$1,152	\$1,241	7.7%

**Exhibit C-25 – Utilization and Expenditure Profile for Participants with Hypertension
Most Expensive Diagnosis at the Time of Engagement**

Forecast versus Actual: 12 Month Period

Enrollment Group	MEDai Forecast	Actual	Actual as Percent of Forecast
Tier 1			
Client Count	427	427	
Inpatient Admission Days (per 1,000 members)	9,899	3,083	31.1%
Emergency Department Visits (per 1,000 members)	3,923	3,885	99.0%
Total PMPM Expenditures	\$2,367	\$1,940	82.0%
Tier 2			
Client Count	2,063	2,063	
Inpatient Admission Days (per 1,000 members)	2,562	1,157	45.2%
Emergency Department Visits (per 1,000 members)	2,053	1,709	83.2%
Total PMPM Expenditures	\$1,116	\$879	78.7%
Tiers 1 & 2			
Client Count	2,490	2,490	
Inpatient Admission Days (per 1,000 members)	3,820	1,531	40.1%
Emergency Department Visits (per 1,000 members)	2,374	2,709	114.1%
Total PMPM Expenditures	\$1,331	\$1,058	79.5%

Paid Claims Analysis: Pre & Post Engagement

Enrollment Group	Pre-Engagement: 1 to 12 months	Engaged Period	Percent Change
Tier 1			
Client Count	427	427	
Inpatient Admission Days (per 1,000 members)	4,770	2,885	-39.5%
Emergency Department Visits (per 1,000 members)	4,077	3,540	-13.2%
Total PMPM Expenditures	\$2,552	\$2,068	-19.0%
Tier 2			
Client Count	2,063	2,063	
Inpatient Admission Days (per 1,000 members)	1,168	971	-16.9%
Emergency Department Visits (per 1,000 members)	1,971	1,535	-22.1%
Total PMPM Expenditures	\$918	\$939	2.3%
Tiers 1 & 2			
Client Count	2,490	2,490	
Inpatient Admission Days (per 1,000 members)	2,171	1,897	-12.6%
Emergency Department Visits (per 1,000 members)	3,352	2,744	-18.2%
Total PMPM Expenditures	\$1,200	\$1,129	-5.9%

**Exhibit C-26 – Utilization and Expenditure Profile for Participants with CVA
Most Expensive Diagnosis at the Time of Engagement**

Forecast versus Actual: 12 Month Period

Enrollment Group	MEDai Forecast	Actual	Actual as Percent of Forecast
Tier 1			
Client Count	23	23	
Inpatient Admission Days (per 1,000 members)	7,261	1,328	18.3%
Emergency Department Visits (per 1,000 members)	1,783	1,660	93.1%
Total PMPM Expenditures	\$4,299	\$2,554	59.4%
Tier 2			
Client Count	66	66	
Inpatient Admission Days (per 1,000 members)	3,167	2,991	94.5%
Emergency Department Visits (per 1,000 members)	1,727	1,852	107.2%
Total PMPM Expenditures	\$1,240	\$2,294	185.0%
Tiers 1 & 2			
Client Count	89	89	
Inpatient Admission Days (per 1,000 members)	4,225	2,592	61.3%
Emergency Department Visits (per 1,000 members)	1,742	2,183	125.4%
Total PMPM Expenditures	\$2,030	\$2,365	116.5%

Paid Claims Analysis: Pre & Post Engagement

Enrollment Group	Pre-Engagement: 1 to 12 months	Engaged Period	Percent Change
Tier 1			
Client Count	23	23	
Inpatient Admission Days (per 1,000 members)	5,004	908	-81.9%
Emergency Department Visits (per 1,000 members)	1,461	1,059	-27.5%
Total PMPM Expenditures	\$4,510	\$1,359	-69.9%
Tier 2			
Client Count	66	66	
Inpatient Admission Days (per 1,000 members)	2,469	681	-72.4%
Emergency Department Visits (per 1,000 members)	1,620	1,702	5.1%
Total PMPM Expenditures	\$1,156	\$2,004	73.4%
Tiers 1 & 2			
Client Count	89	89	
Inpatient Admission Days (per 1,000 members)	3,864	911	-76.4%
Emergency Department Visits (per 1,000 members)	2,136	1,901	-11.0%
Total PMPM Expenditures	\$2,037	\$1,844	-9.5%

**Exhibit C-27 – Utilization and Expenditure Profile for Participants with Depression
Most Expensive Diagnosis at the Time of Engagement**

Forecast versus Actual: 12 Month Period

Enrollment Group	MEDai Forecast	Actual	Actual as Percent of Forecast
Tier 1			
Client Count	549	549	
Inpatient Admission Days (per 1,000 members)	8,510	3,270	38.4%
Emergency Department Visits (per 1,000 members)	4,707	4,189	89.0%
Total PMPM Expenditures	\$2,038	\$1,853	90.9%
Tier 2			
Client Count	2,493	2,493	
Inpatient Admission Days (per 1,000 members)	2,493	1,065	42.7%
Emergency Department Visits (per 1,000 members)	2,688	2,061	76.7%
Total PMPM Expenditures	\$1,084	\$948	87.5%
Tiers 1 & 2			
Client Count	3,042	3,042	
Inpatient Admission Days (per 1,000 members)	3,579	1,446	40.4%
Emergency Department Visits (per 1,000 members)	3,052	2,974	97.5%
Total PMPM Expenditures	\$1,256	\$1,110	88.4%

Paid Claims Analysis: Pre & Post Engagement

Enrollment Group	Pre-Engagement: 1 to 12 months	Engaged Period	Percent Change
Tier 1			
Client Count	549	549	
Inpatient Admission Days (per 1,000 members)	4,724	2,923	-38.1%
Emergency Department Visits (per 1,000 members)	4,334	3,900	-10.0%
Total PMPM Expenditures	\$2,307	\$1,931	-16.3%
Tier 2			
Client Count	2,493	2,493	
Inpatient Admission Days (per 1,000 members)	1,313	987	-24.8%
Emergency Department Visits (per 1,000 members)	2,410	1,924	-20.2%
Total PMPM Expenditures	\$1,035	\$1,030	-0.5%
Tiers 1 & 2			
Client Count	3,042	3,042	
Inpatient Admission Days (per 1,000 members)	2,115	1,659	-21.5%
Emergency Department Visits (per 1,000 members)	3,692	2,785	-24.6%
Total PMPM Expenditures	\$1,268	\$1,214	-4.3%

**Exhibit C-28 – Utilization and Expenditure Profile for Participants with HIV
Most Expensive Diagnosis at the Time of Engagement**

Forecast versus Actual: 12 Month Period

Enrollment Group	MEDai Forecast	Actual	Actual as Percent of Forecast
Tier 1			
Client Count	3	3	
Inpatient Admission Days (per 1,000 members)	9,899	3,083	31.1%
Emergency Department Visits (per 1,000 members)	3,923	3,885	99.0%
Total PMPM Expenditures	\$2,354	\$1,193	50.7%
Tier 2			
Client Count	12	12	
Inpatient Admission Days (per 1,000 members)	2,562	1,157	45.2%
Emergency Department Visits (per 1,000 members)	2,053	1,709	83.2%
Total PMPM Expenditures	\$1,736	\$1,474	84.9%
Tiers 1 & 2			
Client Count	15	15	
Inpatient Admission Days (per 1,000 members)	1,933	462	23.9%
Emergency Department Visits (per 1,000 members)	1,800	1,962	109.0%
Total PMPM Expenditures	\$1,860	\$1,422	76.5%

Paid Claims Analysis: Pre & Post Engagement

Enrollment Group	Pre-Engagement: 1 to 12 months	Engaged Period	Percent Change
Tier 1			
Client Count	3	3	
Inpatient Admission Days (per 1,000 members)	4,770	0	-100.0%
Emergency Department Visits (per 1,000 members)	4,077	462	-88.7%
Total PMPM Expenditures	\$2,878	\$1,275	-55.7%
Tier 2			
Client Count	12	12	
Inpatient Admission Days (per 1,000 members)	1,168	250	-78.6%
Emergency Department Visits (per 1,000 members)	1,971	1,625	-17.6%
Total PMPM Expenditures	\$1,571	\$1,527	-2.8%
Tiers 1 & 2			
Client Count	15	15	
Inpatient Admission Days (per 1,000 members)	231	231	0.0%
Emergency Department Visits (per 1,000 members)	2,308	1,615	-30.0%
Total PMPM Expenditures	\$1,813	\$1,474	-18.7%

**Exhibit C-29 – Utilization and Expenditure Profile for Participants with Hyperlipidemia
Most Expensive Diagnosis at the Time of Engagement**

Forecast versus Actual: 12 Month Period

Enrollment Group	MEDai Forecast	Actual	Actual as Percent of Forecast
Tier 1			
Client Count	54	54	
Inpatient Admission Days (per 1,000 members)	8,537	4,067	47.6%
Emergency Department Visits (per 1,000 members)	3,463	2,494	72.0%
Total PMPM Expenditures	\$2,816	\$2,175	77.2%
Tier 2			
Client Count	297	297	
Inpatient Admission Days (per 1,000 members)	2,465	1,052	42.7%
Emergency Department Visits (per 1,000 members)	1,754	1,423	81.1%
Total PMPM Expenditures	\$1,204	\$910	75.5%
Tiers 1 & 2			
Client Count	351	351	
Inpatient Admission Days (per 1,000 members)	3,399	1,845	54.3%
Emergency Department Visits (per 1,000 members)	2,017	2,100	104.1%
Total PMPM Expenditures	\$1,452	\$1,089	75.0%

Paid Claims Analysis: Pre & Post Engagement

Enrollment Group	Pre-Engagement: 1 to 12 months	Engaged Period	Percent Change
Tier 1			
Client Count	54	54	
Inpatient Admission Days (per 1,000 members)	6,000	3,850	-35.8%
Emergency Department Visits (per 1,000 members)	3,200	2,139	-33.2%
Total PMPM Expenditures	\$3,115	\$2,037	-34.6%
Tier 2			
Client Count	297	297	
Inpatient Admission Days (per 1,000 members)	1,117	1,153	3.2%
Emergency Department Visits (per 1,000 members)	1,570	1,169	-25.6%
Total PMPM Expenditures	\$1,056	\$1,124	6.4%
Tiers 1 & 2			
Client Count	351	351	
Inpatient Admission Days (per 1,000 members)	2,418	2,261	-6.5%
Emergency Department Visits (per 1,000 members)	2,621	1,943	-25.9%
Total PMPM Expenditures	\$1,376	\$1,243	-9.6%

**Exhibit C-30 – Utilization and Expenditure Profile for Participants with Lower Back Pain
Most Expensive Diagnosis at the Time of Engagement**

Forecast versus Actual: 12 Month Period

Enrollment Group	MEDai Forecast	Actual	Actual as Percent of Forecast
Tier 1			
Client Count	71	71	
Inpatient Admission Days (per 1,000 members)	5,310	1,061	20.0%
Emergency Department Visits (per 1,000 members)	5,127	5,055	98.6%
Total PMPM Expenditures	\$2,010	\$1,579	78.6%
Tier 2			
Client Count	833	833	
Inpatient Admission Days (per 1,000 members)	2,076	421	20.3%
Emergency Department Visits (per 1,000 members)	2,703	2,179	80.6%
Total PMPM Expenditures	\$1,000	\$781	78.1%
Tiers 1 & 2			
Client Count	904	904	
Inpatient Admission Days (per 1,000 members)	2,330	515	22.1%
Emergency Department Visits (per 1,000 members)	2,894	2,984	103.1%
Total PMPM Expenditures	\$1,079	\$843	78.1%

Paid Claims Analysis: Pre & Post Engagement

Enrollment Group	Pre-Engagement: 1 to 12 months	Engaged Period	Percent Change
Tier 1			
Client Count	71	71	
Inpatient Admission Days (per 1,000 members)	3,445	933	-72.9%
Emergency Department Visits (per 1,000 members)	5,024	4,311	-14.2%
Total PMPM Expenditures	\$2,256	\$1,582	-29.9%
Tier 2			
Client Count	833	833	
Inpatient Admission Days (per 1,000 members)	811	449	-44.6%
Emergency Department Visits (per 1,000 members)	2,531	1,778	-29.7%
Total PMPM Expenditures	\$866	\$835	-3.6%
Tiers 1 & 2			
Client Count	904	904	
Inpatient Admission Days (per 1,000 members)	1,199	620	-48.3%
Emergency Department Visits (per 1,000 members)	3,795	2,517	-33.7%
Total PMPM Expenditures	\$978	\$891	-8.8%

**Exhibit C-31 – Utilization and Expenditure Profile for Participants with Migraine Headaches
Most Expensive Diagnosis at the Time of Engagement**

Forecast versus Actual: 12 Month Period

Enrollment Group	MEDai Forecast	Actual	Actual as Percent of Forecast
Tier 1			
Client Count	38	38	
Inpatient Admission Days (per 1,000 members)	12,658	4,000	31.6%
Emergency Department Visits (per 1,000 members)	8,763	12,206	139.3%
Total PMPM Expenditures	\$2,416	\$2,087	86.4%
Tier 2			
Client Count	311	311	
Inpatient Admission Days (per 1,000 members)	1,984	960	48.4%
Emergency Department Visits (per 1,000 members)	3,704	2,910	78.6%
Total PMPM Expenditures	\$928	\$835	89.9%
Tiers 1 & 2			
Client Count	349	349	
Inpatient Admission Days (per 1,000 members)	3,146	989	31.4%
Emergency Department Visits (per 1,000 members)	4,255	4,562	107.2%
Total PMPM Expenditures	\$1,090	\$981	89.9%

Paid Claims Analysis: Pre & Post Engagement

Enrollment Group	Pre-Engagement: 1 to 12 months	Engaged Period	Percent Change
Tier 1			
Client Count	38	38	
Inpatient Admission Days (per 1,000 members)	3,155	2,609	-17.3%
Emergency Department Visits (per 1,000 members)	17,178	13,153	-23.4%
Total PMPM Expenditures	\$2,400	\$2,163	-9.9%
Tier 2			
Client Count	311	311	
Inpatient Admission Days (per 1,000 members)	729	786	7.8%
Emergency Department Visits (per 1,000 members)	3,573	2,746	-23.1%
Total PMPM Expenditures	\$874	\$951	8.8%
Tiers 1 & 2			
Client Count	349	349	
Inpatient Admission Days (per 1,000 members)	1,184	1,044	-11.9%
Emergency Department Visits (per 1,000 members)	6,704	4,221	-37.0%
Total PMPM Expenditures	\$1,042	\$1,117	7.2%

**Exhibit C-32 – Utilization and Expenditure Profile for Participants with Multiple Sclerosis
Most Expensive Diagnosis at the Time of Engagement**

Forecast versus Actual: 12 Month Period

Enrollment Group	MEDai Forecast	Actual	Actual as Percent of Forecast
Tier 1			
Client Count	14	14	
Inpatient Admission Days (per 1,000 members)	8,000	2,723	34.0%
Emergency Department Visits (per 1,000 members)	3,857	4,511	116.9%
Total PMPM Expenditures	\$2,376	\$2,623	110.4%
Tier 2			
Client Count	55	55	
Inpatient Admission Days (per 1,000 members)	2,455	1,703	69.4%
Emergency Department Visits (per 1,000 members)	2,309	2,023	87.6%
Total PMPM Expenditures	\$1,698	\$1,937	114.1%
Tiers 1 & 2			
Client Count	69	69	
Inpatient Admission Days (per 1,000 members)	3,580	2,462	68.8%
Emergency Department Visits (per 1,000 members)	2,623	3,991	152.2%
Total PMPM Expenditures	\$1,835	\$2,067	112.7%

Paid Claims Analysis: Pre & Post Engagement

Enrollment Group	Pre-Engagement: 1 to 12 months	Engaged Period	Percent Change
Tier 1			
Client Count	14	14	
Inpatient Admission Days (per 1,000 members)	2,053	1,358	-33.8%
Emergency Department Visits (per 1,000 members)	4,263	3,962	-7.1%
Total PMPM Expenditures	\$2,799	\$2,728	-2.5%
Tier 2			
Client Count	55	55	
Inpatient Admission Days (per 1,000 members)	720	2,015	179.7%
Emergency Department Visits (per 1,000 members)	2,256	1,634	-27.6%
Total PMPM Expenditures	\$1,488	\$2,555	71.6%
Tiers 1 & 2			
Client Count	69	69	
Inpatient Admission Days (per 1,000 members)	1,555	3,188	105.0%
Emergency Department Visits (per 1,000 members)	4,484	3,240	-27.7%
Total PMPM Expenditures	\$1,743	\$2,577	47.9%

**Exhibit C-33 – Utilization and Expenditure Profile for Participants with Renal Failure
Most Expensive Diagnosis at the Time of Engagement**

Forecast versus Actual: 12 Month Period

Enrollment Group	MEDai Forecast	Actual	Actual as Percent of Forecast
Tier 1			
Client Count	41	41	
Inpatient Admission Days (per 1,000 members)	10,512	8,952	85.2%
Emergency Department Visits (per 1,000 members)	2,073	1,620	78.1%
Total PMPM Expenditures	\$3,108	\$3,252	104.6%
Tier 2			
Client Count	64	64	
Inpatient Admission Days (per 1,000 members)	6,359	7,291	114.6%
Emergency Department Visits (per 1,000 members)	1,703	1,900	111.6%
Total PMPM Expenditures	\$1,711	\$3,101	181.2%
Tiers 1 & 2			
Client Count	105	105	
Inpatient Admission Days (per 1,000 members)	7,981	8,278	103.7%
Emergency Department Visits (per 1,000 members)	1,848	2,718	147.1%
Total PMPM Expenditures	\$2,256	\$3,157	139.9%

Paid Claims Analysis: Pre & Post Engagement

Enrollment Group	Pre-Engagement: 1 to 12 months	Engaged Period	Percent Change
Tier 1			
Client Count	41	41	
Inpatient Admission Days (per 1,000 members)	6,793	3,323	-51.1%
Emergency Department Visits (per 1,000 members)	1,785	2,664	49.2%
Total PMPM Expenditures	\$3,407	\$2,669	-21.7%
Tier 2			
Client Count	64	64	
Inpatient Admission Days (per 1,000 members)	3,989	5,879	47.4%
Emergency Department Visits (per 1,000 members)	1,728	1,829	5.8%
Total PMPM Expenditures	\$1,467	\$2,764	88.4%
Tiers 1 & 2			
Client Count	105	105	
Inpatient Admission Days (per 1,000 members)	7,552	6,734	-10.8%
Emergency Department Visits (per 1,000 members)	2,764	3,012	8.9%
Total PMPM Expenditures	\$2,237	\$2,726	21.9%

**Exhibit C-34 – Utilization and Expenditure Profile for Participants with Rheumatoid Arthritis
Most Expensive Diagnosis at the Time of Engagement**

Forecast versus Actual: 12 Month Period

Enrollment Group	MEDai Forecast	Actual	Actual as Percent of Forecast
Tier 1			
Client Count	20	20	
Inpatient Admission Days (per 1,000 members)	13,450	2,924	21.7%
Emergency Department Visits (per 1,000 members)	3,400	2,437	71.7%
Total PMPM Expenditures	\$3,008	\$2,056	68.3%
Tier 2			
Client Count	176	176	
Inpatient Admission Days (per 1,000 members)	2,426	1,268	52.3%
Emergency Department Visits (per 1,000 members)	1,693	1,479	87.3%
Total PMPM Expenditures	\$1,274	\$1,337	104.9%
Tiers 1 & 2			
Client Count	196	196	
Inpatient Admission Days (per 1,000 members)	3,551	1,174	33.1%
Emergency Department Visits (per 1,000 members)	1,867	1,885	100.9%
Total PMPM Expenditures	\$1,451	\$1,407	97.0%

Paid Claims Analysis: Pre & Post Engagement

Enrollment Group	Pre-Engagement: 1 to 12 months	Engaged Period	Percent Change
Tier 1			
Client Count	20	20	
Inpatient Admission Days (per 1,000 members)	4,729	2,704	-42.8%
Emergency Department Visits (per 1,000 members)	3,203	1,708	-46.7%
Total PMPM Expenditures	\$3,221	\$2,274	-29.4%
Tier 2			
Client Count	176	176	
Inpatient Admission Days (per 1,000 members)	972	821	-15.5%
Emergency Department Visits (per 1,000 members)	1,562	1,302	-16.7%
Total PMPM Expenditures	\$1,153	\$1,397	21.1%
Tiers 1 & 2			
Client Count	196	196	
Inpatient Admission Days (per 1,000 members)	1,366	1,366	0.0%
Emergency Department Visits (per 1,000 members)	2,369	1,778	-24.9%
Total PMPM Expenditures	\$1,366	\$1,493	9.3%

**Exhibit C-35 – Utilization and Expenditure Profile for Participants with Schizophrenia
Most Expensive Diagnosis at the Time of Engagement**

Forecast versus Actual: 12 Month Period

Enrollment Group	MEDai Forecast	Actual	Actual as Percent of Forecast
Tier 1			
Client Count	296	296	
Inpatient Admission Days (per 1,000 members)	7,635	3,709	48.6%
Emergency Department Visits (per 1,000 members)	3,139	2,372	75.6%
Total PMPM Expenditures	\$2,128	\$2,296	107.9%
Tier 2			
Client Count	576	576	
Inpatient Admission Days (per 1,000 members)	2,672	1,927	72.1%
Emergency Department Visits (per 1,000 members)	2,660	1,981	74.5%
Total PMPM Expenditures	\$1,215	\$1,157	95.2%
Tiers 1 & 2			
Client Count	872	872	
Inpatient Admission Days (per 1,000 members)	4,357	2,392	54.9%
Emergency Department Visits (per 1,000 members)	2,822	2,460	87.2%
Total PMPM Expenditures	\$1,525	\$1,555	102.0%

Paid Claims Analysis: Pre & Post Engagement

Enrollment Group	Pre-Engagement: 1 to 12 months	Engaged Period	Percent Change
Tier 1			
Client Count	296	296	
Inpatient Admission Days (per 1,000 members)	4,689	2,565	-45.3%
Emergency Department Visits (per 1,000 members)	2,673	2,201	-17.6%
Total PMPM Expenditures	\$2,173	\$2,265	4.2%
Tier 2			
Client Count	576	576	
Inpatient Admission Days (per 1,000 members)	2,268	1,588	-30.0%
Emergency Department Visits (per 1,000 members)	2,275	2,039	-10.4%
Total PMPM Expenditures	\$1,188	\$1,259	6.0%
Tiers 1 & 2			
Client Count	872	872	
Inpatient Admission Days (per 1,000 members)	3,404	2,536	-25.5%
Emergency Department Visits (per 1,000 members)	3,063	2,725	-11.0%
Total PMPM Expenditures	\$1,525	\$1,629	6.8%

Exhibit C-36 – Utilization and Expenditure Profile for All Participants

Forecast versus Actual: 12 Month Period

Enrollment Group	MEDai Forecast	Actual	Actual as Percent of Forecast
Tier 1			
Client Count	3,039	3,039	
Inpatient Admission Days (per 1,000 members)	11,333	3,946	34.8%
Emergency Department Visits (per 1,000 members)	3,867	3,648	94.3%
Total PMPM Expenditures	\$2,387	\$2,207	92.4%
Tier 2			
Client Count	13,412	13,412	
Inpatient Admission Days (per 1,000 members)	2,892	1,249	43.2%
Emergency Department Visits (per 1,000 members)	2,172	1,773	81.6%
Total PMPM Expenditures	\$1,125	\$1,011	89.9%
Tiers 1 & 2			
Client Count	16,451	16,451	
Inpatient Admission Days (per 1,000 members)	4,451	1,333	29.9%
Emergency Department Visits (per 1,000 members)	2,485	2,267	91.2%
Total PMPM Expenditures	\$1,358	\$1,231	90.6%

Paid Claims Analysis: Pre & Post Engagement

Enrollment Group	Pre-Engagement: 1 to 12 months	Engaged Period	Percent Change
Tier 1			
Client Count	3,039	3,039	
Inpatient Admission Days (per 1,000 members)	5,401	3,074	-43.1%
Emergency Department Visits (per 1,000 members)	3,876	3,515	-9.3%
Total PMPM Expenditures	\$2,610	\$2,243	-14.0%
Tier 2			
Client Count	13,412	13,412	
Inpatient Admission Days (per 1,000 members)	1,250	1,096	-12.3%
Emergency Department Visits (per 1,000 members)	2,027	1,589	-21.6%
Total PMPM Expenditures	\$985	\$1,092	11.0%
Tiers 1 & 2			
Client Count	16,451	16,451	
Inpatient Admission Days (per 1,000 members)	1,576	1,487	-5.6%
Emergency Department Visits (per 1,000 members)	2,838	2,155	-24.1%
Total PMPM Expenditures	\$1,288	\$1,312	1.9%

APPENDIX D – NURSE CARE MANAGEMENT COST EFFECTIVENESS

Appendix D includes detailed exhibits documenting the cost effectiveness of nurse care management.

<u>Exhibit</u>	<u>Description</u>
D-1	SoonerCare HMP Administrative Expenses – Nurse Care Management
D-2	SoonerCare HMP Nurse Care Management PMPM Cost Effectiveness
D-3	SoonerCare HMP Nurse Care Management Cost Effectiveness – Aggregate Dollars

Exhibit D-1 – SoonerCare HMP Administrative Expenses – Nurse Care Management

Expense Category	Start-up Costs	Operational (No Start-up) Feb08-Jun12	Total Admin
Indirect Administrative			
SoonerCare Division			
Salary/Benefits	\$ 230,789	\$ 1,060,177	\$ 1,290,966
Allocated Overhead	\$ 31,707	\$ 141,267	\$ 172,974
Total SoonerCare Division	\$ 262,496	\$ 1,201,445	\$ 1,463,941
Telligen Indirect Admin Payments ¹	\$ 463,342	\$ 798,783	\$ 1,262,125
Total Administrative Dollars	\$ 725,838	\$ 2,000,228	\$ 2,726,066
Tier 1 Total PMPM Admin			
Tier 1 Engaged Member Months	36,988	36,988	36,988
Tier 1 Indirect Admin Dollars ²	\$ 362,919	\$ 1,000,114	\$ 1,363,033
Tier 1 PMPM Indirect Admin PMPM Monthly Fee ³	\$ 9.81	\$ 27.04	\$ 36.85
		\$ 184.57	\$ 184.57
Total Tier 1 PMPM Admin	\$ 9.81	\$ 211.61	\$ 221.42
Tier 2 Total PMPM Admin			
Tier 2 Engaged Member Months	156,904	156,904	156,904
Tier 2 Indirect Admin Dollars ²	\$ 362,919	\$ 1,000,114	\$ 1,363,033
Tier 2 PMPM Indirect Admin PMPM Monthly Fee ³	\$ 2.31	\$ 6.37	\$ 8.69
		\$ 46.26	\$ 46.26
Total Tier 2 PMPM Admin	\$ 2.31	\$ 52.64	\$ 54.95

Notes

¹ Telligen indirect start-up expenses include office setup, staff hiring and training, and staff salaries prior to February 2008. Indirect operational expenses include one-time enrollment fee for each participant and mailing costs.

² Administrative expenses allocated equally between Tiers 1 and 2 based on estimated level of effort.

³ PMPM monthly fees are weighted averages of SFY 2008 – 2012.

Exhibit D-2 – SoonerCare HMP Nurse Care Management PMPM Cost Effectiveness

Component	Engagement Dates: February 2008 - June 2012		
	Engaged Period	Post-Engagement	Total
Tier 1			
SoonerCare HMP Engaged - Actual PMPM			
PMPM Medical Costs	\$ 2,243	\$ 1,767	\$ 1,982
SoonerCare HMP Admin			
Start-up	\$ 10	\$ -	\$ 4
Operational	\$ 212	\$ -	\$ 96
Total PMPM Costs (with start-up)	\$ 2,465	\$ 1,767	\$ 2,082
Total PMPM Costs (without start-up)	\$ 2,455	\$ 1,767	\$ 2,078
PMPM Forecasted Expenditures			
MEDai Forecast	\$ 2,387	\$ 2,417	\$ 2,404
PMPM Comparison (Forecast vs. Actual)			
PMPM Costs - Medical Only	94.0%	73.1%	82.5%
PMPM Costs - Medical + Admin			
With Start-up Costs	103.3%	73.1%	86.6%
Without Start-up Costs	102.9%	73.1%	86.4%
Tier 2			
SoonerCare HMP Engaged - Actual PMPM			
PMPM Medical Costs	\$ 1,092	\$ 813	\$ 937
SoonerCare HMP Admin			
Start-up	\$ 2	\$ -	\$ 1
Operational	\$ 53	\$ -	\$ 23
Total PMPM Costs (with start-up)	\$ 1,147	\$ 813	\$ 961
Total PMPM Costs (without start-up)	\$ 1,145	\$ 813	\$ 960
PMPM Forecasted Expenditures			
MEDai Forecast	\$ 1,125	\$ 1,169	\$ 1,150
PMPM Comparison (Forecast vs. Actual)			
PMPM Costs - Medical Only	97.1%	69.6%	81.5%
PMPM Costs - Medical + Admin			
With Start-up Costs	102.0%	69.6%	83.6%
Without Start-up Costs	101.8%	69.6%	83.5%
Tier 1 & Tier 2			
SoonerCare HMP Engaged - Actual PMPM			
PMPM Medical Costs	\$ 1,312	\$ 990	\$ 1,133
SoonerCare HMP Admin			
Start-up	\$ 4	\$ -	\$ 2
Operational	\$ 83	\$ -	\$ 37
Total PMPM Costs (with start-up)	\$ 1,399	\$ 990	\$ 1,172
Total PMPM Costs (without start-up)	\$ 1,395	\$ 990	\$ 1,170
PMPM Forecasted Expenditures			
MEDai Forecast	\$ 1,366	\$ 1,400	\$ 1,385
PMPM Comparison (Forecast vs. Actual)			
PMPM Costs - Medical Only	96.1%	70.7%	81.8%
PMPM Costs - Medical + Admin			
With Start-up Costs	102.4%	70.7%	84.6%
Without Start-up Costs	102.1%	70.7%	84.5%

Exhibit D-2 – SoonerCare HMP Nurse Care Management PMPM Cost Effectiveness (cont'd)

Notes

- *Total NCM administrative PMPM expenses calculated by dividing total administrative expenses by the combined number of engaged and post-engagement member months*
- *Only includes “Engaged” members with more than two months engagement (N=16,451)*
- *Claims and eligibility date ends June, 2012*
- *MEDai forecasts are extracted from the month in which engagement started for each participant*
- *For the purposes of the cost effectiveness analysis, members whose medical expenditures during the year prior to engagement exceeded \$144,000 (i.e., MEDai forecast maximum), PHPG assumed forecasted expenditures equal to prior year expenditures*

Exhibit D-3 – SoonerCare HMP Nurse Care Management Cost Effectiveness – Aggregate Dollars

Component	Engagement Dates: February 2008 - June 2012		
	Engaged Period	Post-Engagement	Total
Tier 1			
Medical Expenditures			
Forecasted Without NCM	\$ 88,282,809	\$ 108,714,184	\$ 196,996,993
Actual	\$ 82,981,810	\$ 79,473,187	\$ 162,454,996
Medical Savings			
Federal Share	\$ 4,011,266	\$ 22,126,663	\$ 26,137,929
State Share	\$ 1,289,733	\$ 7,114,335	\$ 8,404,068
Subtotal Medical Savings	\$ 5,300,999	\$ 29,240,998	\$ 34,541,997
NCM Administrative Expenditures			
Federal Share	\$ 4,129,356	\$ -	\$ 4,129,356
State Share	\$ 4,060,667	\$ -	\$ 4,060,667
Subtotal Administrative Expenditures	\$ 8,190,023	\$ -	\$ 8,190,023
PMPM Forecasted Expenditures			
Federal Share	\$ (118,090)	\$ 22,126,663	\$ 22,008,573
State Share	\$ (2,770,934)	\$ 7,114,335	\$ 4,343,401
TOTAL	\$ (2,889,024)	\$ 29,240,998	\$ 26,351,974
Tier 2			
Medical Expenditures			
Forecasted Without NCM	\$ 176,557,453	\$ 230,770,309	\$ 407,327,762
Actual	\$ 171,408,781	\$ 160,536,419	\$ 331,945,199
Medical Savings			
Federal Share	\$ 3,896,000	\$ 53,145,985	\$ 57,041,985
State Share	\$ 1,252,672	\$ 17,087,906	\$ 18,340,578
Subtotal Medical Savings	\$ 5,148,672	\$ 70,233,890	\$ 75,382,563
NCM Administrative Expenditures			
Federal Share	\$ 4,347,100	\$ -	\$ 4,347,100
State Share	\$ 4,274,789	\$ -	\$ 4,274,789
Subtotal Administrative Expenditures	\$ 8,621,890	\$ -	\$ 8,621,890
PMPM Forecasted Expenditures			
Federal Share	\$ (451,100)	\$ 53,145,985	\$ 52,694,885
State Share	\$ (3,022,117)	\$ 17,087,906	\$ 14,065,788
TOTAL	\$ (3,473,217)	\$ 70,233,890	\$ 66,760,673
Tier 1 & Tier 2			
Medical Expenditures			
Forecasted Without NCM	\$ 264,840,262	\$ 339,484,494	\$ 604,324,755
Actual	\$ 254,390,590	\$ 240,009,606	\$ 494,400,196
Medical Savings			
Federal Share	\$ 7,907,266	\$ 75,272,648	\$ 83,179,914
State Share	\$ 2,542,405	\$ 24,202,240	\$ 26,744,645
Subtotal Medical Savings	\$ 10,449,671	\$ 99,474,888	\$ 109,924,559
NCM Administrative Expenditures			
Federal Share	\$ 8,476,456	\$ -	\$ 8,476,456
State Share	\$ 8,335,456	\$ -	\$ 8,335,456
Subtotal Administrative Expenditures	\$ 16,811,912	\$ -	\$ 16,811,912
PMPM Forecasted Expenditures			
Federal Share	\$ (569,190)	\$ 75,272,648	\$ 74,703,458
State Share	\$ (5,793,051)	\$ 24,202,240	\$ 18,409,189
TOTAL	\$ (6,362,241)	\$ 99,474,888	\$ 93,112,647

**Exhibit D-3 – SoonerCare HMP Nurse Care Management Cost Effectiveness – Aggregate Dollars
(cont'd)**

Notes

- Federal and State share calculated using FMAP of 74.94 (SFY09), 76.51 (SFY10 and SFY11), 74.72 (SFY12).
- Federal and State share of administrative expenses calculated using FMAP of 50 percent except for skilled medical personnel (2.6 percent)
- Only includes “Engaged” members with more than two months engagement (N=16,451)
- Claims and eligibility date ends June, 2012
- MEDai forecasts are extracted from the month in which engagement started for each participant
- For the purposes of the cost effectiveness analysis, members whose medical expenditures during the year prior to engagement exceeded \$144,000 (i.e., MEDai forecast maximum), PHPG assumed forecasted expenditures equal to prior year expenditures

Appendix E – CareMeasures™ Core Measurement Requirements (required core measures for improvement payments are in bold)

ASTHMA	Asthma	Core Measurement Requirements for Payment
ASTHMA 1	Asthma Assessment	% of patients 5 to 40 with a diagnosis of asthma who were evaluated during at least one office visit within 12 months for the frequency (numeric) of daytime and nocturnal asthma symptoms
ASTHMA 2	Pharmacologic Therapy	% of patients 5 to 40 with a diagnosis of mild, moderate or severe persistent asthma who were prescribed either the preferred long-term control medication (inhaled corticosteroid) or an acceptable alternative treatment

CAD	Coronary Artery Disease (CAD)	Core Measurement Requirements for Payment
CAD 1	Antiplatelet Therapy	% of patients 18 and older with diagnosis of CAD who were prescribed oral antiplatelet therapy
CAD 2	Drug Therapy for Lowering LDL Cholesterol	% of patients 18 and older with CAD who were prescribed a lipid-lowering therapy
CAD 3	Beta-Blocker Therapy-Prior Myocardial Infarction (MI)	% of patients 18 and older with a diagnosis of CAD and prior MI who were prescribed beta-blocker therapy
CAD 4	Blood Pressure < 140/90 mmHg	% of patients 18 years and older with CAD who had blood pressure < 140/90 mmHg
CAD 5	Lipid Profile in Pts. With CAD	Percentage of patients aged 18 years and older with a diagnosis of coronary artery disease (CAD) who received at least one lipid profile within 12 months
CAD 6	Optimally Managed Modifiable Risk	% of patients between 18 and 75 with CAD who have optimally managed modifiable risk factors (LDL, tobacco non-use, blood pressure control, aspirin usage)
CAD 7	ACE/ARB Inhibitor Therapy	% of patients 18 and older with CAD who also have DM and/or LVSD who were prescribed ACE inhibitor or ARB therapy
CAD 8	Symptom and Activity Assessment	% of patients 18 and older with CAD who were evaluated for both level of activity and angina symptoms during one or more office visits
CAD 9	Lipid Profile During Reporting Year and LDL-C < 100	% of patients 18 and older with CAD who received at least one lipid profile during last year and LDL-C < 100

COPD	Chronic Obstructive Pulmonary Disease (COPD)	Core Measurement Requirements for Payment
COPD 1	Spirometry Evaluation	Percentage of patients aged 18 years and older with a diagnosis of chronic obstructive pulmonary disease (COPD) who had spirometry evaluation results documented
COPD 2	Bronchodilator Therapy	Percentage of patients aged 18 years and older with a diagnosis of chronic obstructive pulmonary disease (COPD), who have an FEV1/FVC less than 70% and have symptoms, who were prescribed an inhaled bronchodilator

Appendix E – cont'd

DM	Diabetes Mellitus	Core Measurement Requirements for Payment
DM 1	HbA1c Management	% of patients 18 to 75 with DM receiving one or more A1c test(s) per year
DM 2	HbA1c Management Control	% of patients 18 to 75 with DM who had most recent hemoglobin A1c less than 9%
DM 3	Blood Pressure Management	% of patients 18 to 75 with DM who had most recent blood pressure in control (< 140/80 mmHg)
DM 4	Lipid Measurement	% of patients 18 to 75 with DM receiving at least one lipid profile (or ALL component tests)
DM 5	LDL Cholesterol Level	% of patients 18 to 75 with DM with most recent LDL-C < 130 mg/dl
DM 5W	LDL Result < 100 mg/dl	% of patients 18 to 75 with DM who had most recent LDL-C level in control (less than 100 mg/dl)
DM 6	Urine Protein Testing	% of patients 18 to 75 with DM who received urine protein screening or medical attention for nephropathy during at least one office visit within 12 months
DM 7	Eye Exam	% of patients 18 to 75 years with diagnosis of DM who had dilated eye exam
DM 8	Foot Exam	% of patients 18 to 75 with DM who had a foot exam

HF	Heart Failure	Core Measurement Requirements for Payment
HF 1	Left Ventricular Function Assessment	% of patients with HF with quantitative or qualitative results of left ventricular function assessment recorded
HF 2	ACE Inhibitor Therapy	% of patients 18 and older with diagnosis of HF and LVSD who were prescribed ACE inhibitor or ARB therapy
HF 3	Weight Measurement	% of patients 18 and older with diagnosis of HF who had weight measurement recorded
HF 5	Patient Education	% of patients with HF who were provided with patient education on disease management and health behavior changes during one or more visit(s)
HF 6	Beta Blocker Therapy	% of patients 18 and older with diagnosis of HF who also have LVSD and who were prescribed beta-blocker therapy

Appendix E – cont’d

HTN	Hypertension	Core Measurement Requirements for Payment
HTN 1	Blood Pressure Screening	% of patient visits with blood pressure measurement recorded among all patient visits for patients 18 years with diagnosed HTN
HTN 2	Blood Pressure Control	% of patients 18 and older who had a diagnosis of HTN and whose blood pressure was adequately controlled (< 140/90 mmHg) during the measurement year

PC	Preventive Care	Core Measurement Requirements for Payment
PC 1	Breast Cancer Screening	% of women 50 to 69 who had a mammogram to screen for breast cancer within 24 months
PC 2	Colorectal Cancer Screening	% of patients 50 to 80 who received the appropriate colorectal cancer screening
PC 3	Influenza Vaccination	% of patients who received an influenza vaccination during the measurement period
PC 4	Pneumonia Vaccination	% of patients 65 years and older who have ever received a pneumococcal vaccine
PC 5	Tobacco Cessation	% of patients identified as tobacco users who received cessation intervention during the measurement period
PC6	BMI Screening and Follow-Up	% of patients aged 18 years and older with a calculated BMI and if the most recent BMI is outside of normal parameters, a follow-up plan is documented

TOB	Smoking Cessation (Tobacco)	Core Measurement Requirements for Payment
TOB 1	Inquiry about Tobacco	% of patients 10 and older where inquiry about tobacco use was recorded
TOB 2	Readiness to Quit Assessment	% of patients 10 and older who use tobacco where act of assessing the patient’s readiness to quit tobacco use was recorded
TOB 3	Received Motivational Intervention to Quit Tobacco Use	% of patients 10 and older who use tobacco who were provided motivational treatment to quit tobacco use
TOB 4	Received assistance with Developing a Behavioral Health Quit Plan	% of patients 10 and older who use tobacco where assistance with developing a behavioral quit plan was provided

Appendix E – cont’d

TOB	Smoking Cessation (Tobacco)	Core Measurement Requirements for Payment
TOB 5	Recommended to Use Medication to Aid Their Quit Plan	% of patients 18 and older who use tobacco where medication use was recommended to aid their quit plan
TOB 6	Provided Relapse Assistance	% of patients 10 and older who were former tobacco users where assistance with relapse prevention was provided
TOB 7	Advised Patient to Quit Tobacco Use	% of patients 10 and older who use tobacco where the act of advising the patient to quit tobacco use was recorded
TOB 8	30 Day Follow Up	% of patients 10 and older who use tobacco, and who are ready to quit using tobacco, where a follow up was scheduled

APPENDIX F— PRACTICE FACILITATION SITE SURVEY MATERIALS

Appendix F includes the advance letter sent to practice facilitation sites and practice facilitation survey instrument.



The Oklahoma Health Care Authority would like to hear about your experiences with the SoonerCare Health Management Program Practice Facilitation initiative being carried-out by the Iowa Foundation for Medical Care. The purpose of the survey is to gather information on the program's value and how it can be improved from a provider's perspective.

The survey is voluntary and confidential. Your answers will be combined with those of other providers being surveyed and will not be reported separately. Please return your completed survey to:

**HMP Provider Survey
1725 McGovern
Highland Park, IL 60035**

If you have any questions, you can reach us toll-free at [1-888-941-9358](tel:1-888-941-9358) during the hours of 9 a.m. and 5 p.m., Monday through Friday. Thank you.

PRACTICE FACILITATION PROVIDER SURVEY

The Oklahoma Health Care Authority would like to hear about your experiences with the SoonerCare Health Management Program Practice Facilitation initiative being carried-out by the Iowa Foundation for Medical Care. The purpose of the survey is to gather information on the program's value and how it can be improved, from a provider's perspective.

PRACTICE DEMOGRAPHICS

1. What is your medical practice specialty?
 - a. General/Family Practice
 - b. General Pediatrics
 - c. General Internal Medicine
 - d. OB/GYN
 - e. Other. Please specify:

2. Approximately how long have you been a Medicaid provider in Oklahoma? Medicaid includes the SoonerCare program.
 - a. Less than six months
 - b. Six to twelve months
 - c. More than one year but less than two years
 - d. More than two years but less than five years
 - e. Five years or longer

3. About what percentage of your patients have Medicaid as their primary coverage?
 - a. Less than 10 percent
 - b. 10 to 24 percent
 - c. 25 to 49 percent
 - d. 50 percent or more

DECISION TO PARTICIPATE IN PRACTICE FACILITATION

4. Were you the person who made the decision to participate in the Practice Facilitation initiative?
 - a. Yes
 - b. No. If your answer is “no,” please proceed to Question 7.

5. What were your reasons for deciding to participate?
 - a. Improve care management of patients with chronic conditions/improve outcomes
 - b. Obtain information on patient utilization and costs
 - c. Receive assistance in redesigning practice workflows
 - d. Reduce costs
 - e. Increase income
 - f. Continuing education
 - g. Other. Please specify:

6. Among the reasons you cited, what was the most important reason for deciding to participate? (If you require additional space to answer, please use additional paper and attach it to the survey.)

PRACTICE FACILITATION COMPONENTS

7. Regardless of your actual experience, please rate how important you think each one is in preparing a practice to better manage patients with chronic medical conditions.

	Very Important	Somewhat Important	Not Too Important	Not At All Important
a. Receiving information on the prevalence of chronic diseases among your patients				
b. Receiving a baseline assessment of how well you have been managing the care of your patients with chronic diseases				
c. Receiving focused training in evidence-based practice guidelines for chronic conditions				
d. Receiving assistance in redesigning office workflows and policies and procedures for management of patients with chronic diseases				
e. Identifying performance measures to track your improvement in managing the care of your patients with chronic diseases				
f. Having a Practice Facilitator on-site to work with you and your staff				
g. Receiving quarterly reports on your progress with respect to identified performance measures				
h. Receiving ongoing education and assistance after conclusion of the initial onsite activities				

PRACTICE FACILITATION COMPONENTS cont'd

8. The following is a list of activities that typically are part of Practice Facilitation. For each one, please rate how helpful it was to you in improving your management of patients with chronic medical conditions. If the activity did not occur at your practice, please note.

	Very Helpful	Somewhat Helpful	Not Too Helpful	Not At All Helpful
a. Receiving information on the prevalence of chronic diseases among your patients				
b. Receiving a baseline assessment of how well you have been managing the care of your patients with chronic diseases				
c. Receiving focused training in evidence-based practice guidelines for chronic conditions				
d. Receiving assistance in redesigning office workflows and policies and procedures for management of patients with chronic diseases				
e. Identifying performance measures to track your improvement in managing the care of your patients with chronic diseases				
f. Having a Practice Facilitator on-site to work with you and your staff				
g. Receiving quarterly reports on your progress with respect to identified performance measures				
h. Receiving ongoing education and assistance after conclusion of the initial onsite activities				

PRACTICE FACILITATION OUTCOMES

9. Have you made changes in the management of your patients with chronic conditions as the result of participating in the Practice Facilitation initiative?
- a. Yes
 - b. No. If your answer is “no,” please proceed to Question 12.

10. What are the changes you made?

11. What is the most important change you made?

12. Are you using the Care Measures software to provide ongoing information to Telligent on your patients?
- a. Yes
 - b. No

13. Are you using Care Measures to create flow sheets?
- a. Yes
 - b. No

14. How else are you using Care Measures?

15. Do you find Care Measures to be a useful tool?

- a. Yes
- b. No

16. The Practice Facilitation initiative currently includes incentive payments for accepting a practice facilitator and filing quarterly reports. In the future it also will include payments for improving performance. Were you aware of these incentive payments?

- a. Yes (all three)
- b. Yes (accepting facilitator and filing reports only)
- c. No

17. Do the incentive payments make it more likely you will continue to participate in the Practice Facilitation initiative?

18. Has your practice become more effective in managing patients with chronic conditions as a result of your participation in the Practice Facilitation initiative?

- a. Yes
- b. No

19. How satisfied are you with your experience in the Practice Facilitation initiative?

- a. Very satisfied
- b. Somewhat satisfied
- c. Somewhat dissatisfied
- d. Very dissatisfied

20. Would you recommend the Practice Facilitation initiative to other physicians caring for patients with chronic conditions?

- a. Yes
- b. No

21. Do you have any suggestions for improving the Practice Facilitation initiative?

NURSE CARE MANAGEMENT

22. Have any of your patients been assigned a Nurse Care Manager by the Health Care Authority?

- a. Yes. If your answer is “yes,” please respond to Questions 23 through 26.
- b. No

23. Have the Nurse Care Managers consulted with you about the care of these patients?

- a. Yes
- b. No

24. Have you been receiving quarterly reports on your patients with Nurse Care Managers?

- a. Yes
- b. No

25. Have you found these reports to be useful in managing the care of these patients?

- a. Yes
- b. No

26. Do you believe the Nurse Care Managers are having a positive impact on your patients, in terms of their ability to better understand and self-manage their chronic conditions?

- a. Yes
- b. No

Please list the name and position of the individual completing the Provider Survey:

Please list the name of the practice and address:

Please return your completed survey to:

**HMP Provider Survey
1725 North McGovern
Highland Park, IL 60035**

Thank you for your help!

APPENDIX G – PRACTICE FACILITATION EXPENDITURE DATA

Appendix G includes a full set of practice facilitation expenditure exhibits for practice facilitation. The exhibits are listed below.

<u>Exhibit</u>	<u>Description</u>
G-1	Practice Facilitation Patient Costs – Forecast versus Actual: <i>Months 1 to 12 Following Initiation</i>
G-2	Practice Facilitation Patient Costs – Forecast versus Actual: <i>Months 13 to 24 Following Initiation</i>
G-3	Practice Facilitation Patient Costs – Forecast versus Actual: <i>Months 25 and Beyond Following Initiation</i>
G-4	Practice Facilitation Patient Costs – Forecast versus Actual: <i>All Months Following Initiation</i>

**Exhibit G-1 – Practice Facilitation Patient Costs – Forecast versus Actual:
Months 1 to 12 Following Initiation**

Chronic Impact Condition	Post-Initiation: 1 to 12 months			
	Member Months	MEDai Forecast	Actual	Actual, as % of Forecast
Asthma	20,708	\$ 452.24	\$ 414.04	91.6%
Coronary Artery Disease	5,839	\$ 1,098.48	\$ 1,160.72	105.7%
Hypertension	23,036	\$ 956.86	\$ 813.46	85.0%
Congestive Heart Failure	2,847	\$ 1,730.87	\$ 1,763.51	101.9%
COPD	8,098	\$ 1,287.71	\$ 1,139.49	88.5%
Cerebrovascular Accident	853	\$ 655.95	\$ 870.35	132.7%
Depression	40,791	\$ 642.13	\$ 611.81	95.3%
Diabetes	17,816	\$ 1,126.28	\$ 1,027.29	91.2%
HIV	233	\$ 2,083.14	\$ 2,462.90	118.2%
Hyperlipidemia	4,733	\$ 648.03	\$ 502.25	77.5%
Lower Back Pain	10,959	\$ 672.14	\$ 486.27	72.3%
Migraine Headaches	3,866	\$ 627.93	\$ 505.36	80.5%
Multiple Sclerosis	506	\$ 1,258.62	\$ 1,446.86	115.0%
Renal Failure	560	\$ 2,397.94	\$ 3,394.68	141.6%
Rheumatoid Arthritis	1,245	\$ 978.41	\$ 949.38	97.0%
Schizophrenia	10,387	\$ 1,043.18	\$ 1,097.61	105.2%
None	46,097	\$ 270.84	\$ 219.52	81.1%
All Patients	198,574	\$ 721.48	\$ 644.14	89.3%

Notes

- Only includes patients who received at least one service from a practice facilitation provider during months 1 to 12 following provider initiation.

**Exhibit G-2 – Practice Facilitation Patient Costs – Forecast versus Actual:
Months 13 to 24 Following Initiation**

Chronic Impact Condition	Post-Initiation: 13 to 24 months				
	Member Months	MEDai Forecast	Actual	Actual, as % of Forecast	Change, % of Forecast
Asthma	25,870	\$ 380.05	\$ 403.27	106.1%	14.6%
Coronary Artery Disease	7,296	\$ 1,129.45	\$ 934.44	82.7%	-22.9%
Hypertension	27,618	\$ 945.37	\$ 785.86	83.1%	-1.9%
Congestive Heart Failure	3,579	\$ 1,741.77	\$ 1,730.83	99.4%	-2.5%
COPD	9,828	\$ 1,239.52	\$ 918.74	74.1%	-14.4%
Cerebrovascular Accident	1,188	\$ 992.18	\$ 1,006.20	101.4%	-31.3%
Depression	50,291	\$ 653.96	\$ 568.60	86.9%	-8.3%
Diabetes	22,033	\$ 1,093.47	\$ 850.27	77.8%	-13.5%
HIV	290	\$ 2,516.30	\$ 2,650.93	105.3%	-12.9%
Hyperlipidemia	5,913	\$ 586.11	\$ 458.30	78.2%	0.7%
Lower Back Pain	14,186	\$ 633.39	\$ 436.09	68.9%	-3.5%
Migraine Headaches	4,852	\$ 612.70	\$ 490.41	80.0%	-0.4%
Multiple Sclerosis	710	\$ 1,423.48	\$ 1,484.91	104.3%	-10.6%
Renal Failure	768	\$ 2,559.83	\$ 1,773.76	69.3%	-72.3%
Rheumatoid Arthritis	1,589	\$ 1,062.72	\$ 748.09	70.4%	-26.6%
Schizophrenia	13,159	\$ 995.46	\$ 1,001.79	100.6%	-4.6%
None	102,893	\$ 446.43	\$ 402.08	90.1%	9.0%
All Patients	257,483	\$ 698.23	\$ 560.24	80.2%	-9.0%

Notes

- Only includes patients who received at least one service from a practice facilitation provider during months 1 to 24 following provider initiation.

**Exhibit G-3 – Practice Facilitation Patient Costs – Forecast versus Actual:
Months 25 and Beyond Following Initiation**

Chronic Impact Condition	Post-Initiation: Months 25 and beyond				
	Member Months	MEDai Forecast	Actual	Actual, as % of Forecast	Change, % of Forecast
Asthma	16,437	\$ 375.59	\$ 333.97	88.9%	-17.2%
Coronary Artery Disease	4,249	\$ 715.07	\$ 663.20	92.7%	10.0%
Hypertension	15,765	\$ 666.66	\$ 661.69	99.3%	16.1%
Congestive Heart Failure	2,162	\$ 1,629.67	\$ 1,523.33	93.5%	-5.9%
COPD	5,771	\$ 707.43	\$ 792.59	112.0%	37.9%
Cerebrovascular Accident	751	\$ 655.39	\$ 367.89	56.1%	-45.3%
Depression	31,613	\$ 515.69	\$ 492.88	95.6%	8.6%
Diabetes	12,680	\$ 745.46	\$ 706.08	94.7%	17.0%
HIV	136	\$ 1,946.96	\$ 1,691.79	86.9%	-18.5%
Hyperlipidemia	3,951	\$ 351.40	\$ 352.20	100.2%	22.0%
Lower Back Pain	7,800	\$ 403.32	\$ 461.53	114.4%	45.6%
Migraine Headaches	2,703	\$ 434.42	\$ 432.72	99.6%	19.6%
Multiple Sclerosis	430	\$ 852.90	\$ 1,288.89	151.1%	46.8%
Renal Failure	405	\$ 1,044.12	\$ 896.97	85.9%	16.6%
Rheumatoid Arthritis	919	\$ 600.74	\$ 692.93	115.3%	45.0%
Schizophrenia	7,426	\$ 960.79	\$ 859.28	89.4%	-11.2%
None	65,684	\$ 357.41	\$ 341.75	95.6%	5.6%
All Patients	159,543	\$ 496.36	\$ 465.17	93.7%	13.5%

Notes

- Only includes patients who received at least one service from a practice facilitation provider during months 1 to 24 following provider initiation.

**Exhibit G-4 – Practice Facilitation Patient Costs – Forecast versus Actual:
All Months Following Initiation**

Chronic Impact Condition	Post-Initiation: All Months				
	Member Months	MEDai Forecast	Actual	Actual, as % of Forecast	Aggregate Medical Savings/(Deficit)
Asthma	63,015	\$ 402.61	\$ 388.74	96.6%	\$ 874,309
Coronary Artery Disease	17,384	\$ 1,017.77	\$ 944.15	92.8%	\$ 1,279,795
Hypertension	66,419	\$ 883.20	\$ 765.96	86.7%	\$ 7,786,883
Congestive Heart Failure	8,588	\$ 1,709.94	\$ 1,689.43	98.8%	\$ 176,104
COPD	23,697	\$ 1,126.40	\$ 963.46	85.5%	\$ 3,861,401
Cerebrovascular Accident	2,792	\$ 798.87	\$ 793.00	99.3%	\$ 16,375
Depression	122,695	\$ 614.40	\$ 563.46	91.7%	\$ 6,250,858
Diabetes	52,529	\$ 1,020.59	\$ 875.50	85.8%	\$ 7,621,457
HIV	659	\$ 2,245.65	\$ 2,386.51	106.3%	\$ (92,822)
Hyperlipidemia	14,597	\$ 542.66	\$ 443.83	81.8%	\$ 1,442,557
Lower Back Pain	32,945	\$ 591.81	\$ 458.81	77.5%	\$ 4,381,800
Migraine Headaches	11,421	\$ 575.66	\$ 481.82	83.7%	\$ 1,071,811
Multiple Sclerosis	1,646	\$ 1,223.74	\$ 1,422.00	116.2%	\$ (326,337)
Renal Failure	1,733	\$ 2,153.30	\$ 2,092.64	97.2%	\$ 105,123
Rheumatoid Arthritis	3,753	\$ 921.63	\$ 801.36	87.0%	\$ 451,371
Schizophrenia	30,972	\$ 1,003.15	\$ 999.76	99.7%	\$ 105,063
None	214,674	\$ 381.49	\$ 344.42	90.3%	\$ 7,957,400
All Patients	615,600	\$ 653.41	\$ 562.67	86.1%	\$ 55,863,530

Notes

- Only includes patients who received at least one service from a practice facilitation provider during months 1 to 24 following provider initiation.

APPENDIX H – PRACTICE FACILITATION COST EFFECTIVENESS

Appendix H includes detailed exhibits documenting the cost effectiveness of practice facilitation.

<u>Exhibit</u>	<u>Description</u>
H-1	SoonerCare HMP Administrative Expenses – Practice Facilitation
H-2	SoonerCare HMP Practice Facilitation PMPM Cost Effectiveness: <i>Months 1 to 12 and 13 to 24 Following Initiation</i>
H-3	SoonerCare HMP Practice Facilitation Cost Effectiveness – Aggregate Dollars

Exhibit H-1 – SoonerCare HMP Administrative Expenses – Practice Facilitation

Expense Category	Start-up Costs	Operational (No Start-up) Feb08 - Jun12	Total Admin
SoonerCare Division			
Salary & Benefits	\$ 233,440	\$ 1,049,105	\$ 1,282,545
Allocated Overhead	\$ 32,071	\$ 143,687	\$ 175,758
Total	\$ 265,511	\$ 1,192,792	\$ 1,458,303
Telligen Vendor Payments			
Indirect ¹	\$ 463,342	\$ 7,830,303	\$ 8,293,645
Total Administrative Dollars	\$ 728,853	\$ 9,023,096	\$ 9,751,949
PMPM Admin			
PF Site Member Months ²	615,600	615,600	615,600
PMPM Admin	\$ 1.18	\$ 14.66	\$ 15.84

Notes

¹ Telligen indirect start-up expenses include office setup, staff hiring and training, and staff salaries prior to February 2008. Operational expenses include monthly practice facilitator expenses.

² Unduplicated patient member months for patients receiving services at Practice Facilitation sites within the 24 months after provider initiation into the program.

Exhibit H-2 – SoonerCare HMP Practice Facilitation PMPM Cost Effectiveness

	Post-Initiation Period			Total
	Months 1 to 12	Months 13 to 24	Months 25 and Beyond	
PMPM Actual Expenditures				
Medical Costs	\$ 127,908,619	\$ 144,253,333	\$ 74,214,944	\$ 346,376,896
Member Months	198,574	257,483	159,543	615,600
PMPM Medical Costs	\$ 644.14	\$ 560.24	\$ 465.17	\$ 562.67
SoonerCare HMP Admin				
Start-up	\$ 1	\$ 1	\$ 1	\$ 1
Operational	\$ 15	\$ 15	\$ 15	\$ 15
Total PMPM Costs (with start-up)	\$ 660	\$ 576	\$ 481	\$ 579
Total PMPM Costs (without start-up)	\$ 659	\$ 575	\$ 480	\$ 577
PMPM Forecasted Expenditures				
MEDai Forecast	\$ 721.48	\$ 698.23	\$ 496.36	\$ 653.41
PMPM Comparison (forecast vs. actual)				
PMPM Costs - Medical Only	89.3%	80.2%	93.7%	86.1%
PMPM Costs - Medical + Admin				
With Start-up Costs	91.5%	82.5%	96.9%	88.5%
Without Start-up Costs	91.3%	82.3%	96.7%	88.4%

Notes

- Medical costs for patient experience following the month in which practice facilitation began for each provider
- Includes medical costs for patients who received services from a practice facilitation provider within the 24 months following the month after provider initiation

Exhibit H-3 – SoonerCare HMP Practice Facilitation Cost Effectiveness - Aggregate Dollars

	February 2008 - June 2012
Practice Facilitation Sites - Medical Expenditures	
Forecasted without Practice Facilitation	\$ 402,240,426
PMPM Actual versus Forecast - Medical Only	86.1%
Actual Expenditures	\$ 346,376,896
Medical Savings/(Deficit)	
Federal Share	\$ 42,271,933
State Share	<u>\$ 13,591,597</u>
Subtotal Medical Savings	\$ 55,863,530
Practice Facilitation - Administrative Expenditures	
Federal Share	\$ 4,916,869
State Share	<u>\$ 4,835,080</u>
Subtotal Administrative	\$9,751,949
Total Savings/(Deficit)	
Federal Share	\$ 37,355,065
State Share	<u>\$ 8,756,517</u>
Total	\$ 46,111,582

Notes

- Federal and State share calculated using FMAP of 74.94 (SFY 2009), 76.51 (SFY 2010 and SFY 2011), and 74.72 (SFY 2012) percent.
- Federal and State share of administrative expenses calculated using FMAP of 50 percent except for skilled medical personnel (2.6 percent)
- Methodology for calculation of aggregate savings was refined in SFY 2012, as described in chapter three of the report. If SFY 2012 methodology had been applied in the prior year's report, aggregate savings through SFY 2011 would have been documented as \$33.5 million.